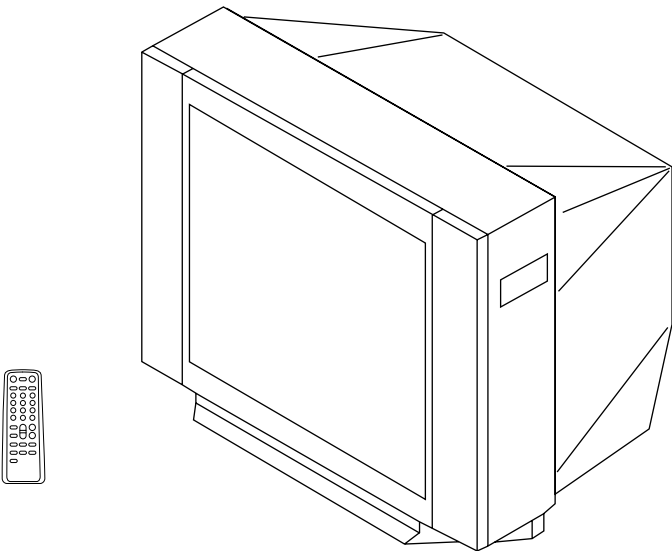


SERVICE MANUAL

BG-3S CHASSIS

<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>	<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>
<i>KV-XG29M61</i>	<i>RM-952</i>	<i>Malaysia</i>	<i>SCC-U21H-A</i>				
<i>KV-XG29M61</i>	<i>RM-952</i>	<i>Singapore</i>	<i>SCC-U29C-A</i>				



TRINITRON® COLOR TV
SONY®

SPECIFICATIONS

		Note
Power requirements	110-220 V AC, 50/60 Hz	
	220-240 V AC, 50/60 Hz	Malaysia only
Power consumption (W)	Indicated on the rear of the TV	
Television system	B/G, I, D/K, M	
Color system	PAL, PAL 60, SECAM, NTSC4.43, NTSC3.58	
Stereo/Bilingual System	NICAM Stereo/Bilingual B/G, I; A2 Stereo/Bilingual (German) B/G	
Teletext language	English, Arabic, French	
Channel coverage		
B/G	VHF : E2 to E12 UHF : E21 to E69 CATV : S01 to S03, S1 to S41	
I	UHF : B21 to B68 CATV : S01 to S03, S1 to S41	
D/K	VHF : C1 to C12, R1 to R12 UHF : C13 to C57, R21 to R60 CATV: S01 to S03, S1 to S41, Z1 to Z39	
M	VHF : A2 to A13 UHF : A14 to A79 CATV : A-8 to A-2, A to W+4, W+6 to W+84	
㏄ (Antenna)	75-ohm external terminal	
Audio output	5W + 5W	
Number of terminal		
Ⓜ (Video)	Input: 2 Output: 1	Phono jacks; 1 V _{P-P} , 75 ohms
♪ Audio	Input: 2 Output: 1	Phono jacks; 500 mVrms
🎧 (Headphone)	Output: 1	Minijack
Picture tube	29 inch	
Tube size (cm)	72	Measured diagonally
Screen size (cm)	68	Measured diagonally
Dimension (w/h/d, mm)	794 × 573 × 517	
Mass (kg)	48	

Design and specifications are subject to change without notice.

CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK **⚠** ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
	SELF DIAGNOSIS FUNCTION	4			
1. GENERAL		8	5. DIAGRAMS		
2. DISASSEMBLY			5-1. Block Diagram	41	
2-1. Rear Cover Removal	22		5-2. Frame Schematic Diagram	44	
2-2. Speaker Removal	22		5-3. Circuit Boards Location	47	
2-3. Chassis Assy Removal	22		5-4. Schematic Diagrams and Printed Wiring Boards ...	48	
2-4. Service Position	22		(1) Schematic Diagram of A (1/2) Board	51	
2-5. Replacement of Parts	23		(2) Schematic Diagram of A (2/2) Board	55	
2-5-1. Replacement of Control Button	23		(3) Schematic Diagrams of C6 and VM1 Boards	59	
2-5-2. Replacement of Light Guide	23		(4) Schematic Diagrams of B6 and B2 Boards	63	
2-6. PWB Holder Removal	23		(5) Schematic Diagrams of H2 and V1 Boards	73	
2-7. V1 Board Removal	23		(6) Schematic Diagram of D3 Board	75	
2-8. D3 Board Removal	24		5-5. Semiconductors	77	
2-9. Terminal Bracket Removal	24				
2-10. H2 Board Removal	24		6. EXPLODED VIEWS		
2-11. A and B6 Boards Removal	24		6-1. Speaker Bracket	80	
2-12. Picture Tube Removal	25		6-2. Chassis	81	
			6-3. Picture Tube	82	
3. SET-UP ADJUSTMENTS			7. ELECTRICAL PARTS LIST	83	
3-1. Beam Landing	26				
3-2. Convergence	27				
3-3. Focus Adjustment	29				
3-4. G2 (Screen) and White Balance Adjustments	30				
4. CIRCUIT ADJUSTMENT					
4-1. Adjustments with Commander	31				
4-2. Adjustment Method	32				
4-3. Picture Quality Adjustments	37				
4-4. A Board Adjustment After IC003 (Memory) Replacement	37				
4-5. Picture Distortion Adjustment	38				

SELF DIAGNOSTIC FUNCTION

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/TIMER lamp will automatically begin to flash.

The number of times the lamp flashes translates to a probable source of the problem. A definition of the STANDBY/TIMER lamp flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the remote commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

1. DIAGNOSTIC TEST INDICATORS

When an errors occurs, the STANDBY/TIMER lamp will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the lamp will identify the first of the problem areas.

Result for all of the following diagnostic items are displayed on screen. No error has occurred if the screen displays a "0".

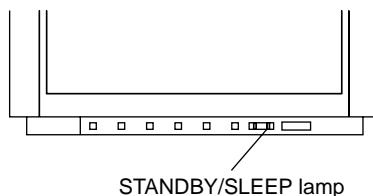
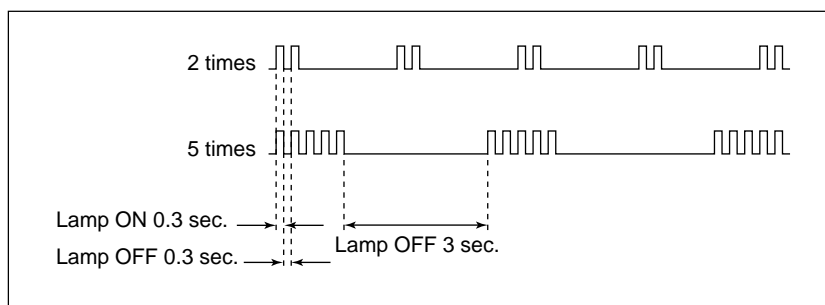
Diagnostic Item Description	No. of times STANDBY/TIMER lamp flashes	Self-diagnostic display/Diagnostic result	Probable Cause Location	Detected Symptoms
• Power does not turn on	Does not light	—	<ul style="list-style-type: none"> • Power cord is not plugged in. • Fuse is burned out F8601 (B6) 	<ul style="list-style-type: none"> • Power does not come on. • No power is supplied to the TV. • AC power supply is faulty.
<ul style="list-style-type: none"> • +B overcurrent (OCP) or overvoltage (OVP) • Vertical deflection stopped • Horizontal deflection overdrive 	2 times	002:000 or 002:001~255 003:001~255 004:001~255 at the same time	<ul style="list-style-type: none"> • H.OUT Q511 is shorted. (A board) • IC701 is shorted. (C6 board) • -13V is not supplied. (A board) • IC 503 faulty (A board) 	<ul style="list-style-type: none"> • Power does not come on. • Load on power line is shorted. • Has entered standby state after horizontal raster. • Vertical deflection pulse is stopped. • Power line is shorted or power supply is stopped.
• White balance failure (no PICTURE)	5 times	005:000 or 005:001~225	<ul style="list-style-type: none"> • G2 is improperly adjusted. (Note 2) • CRT problem. • Video OUT IC701 is faulty. (C6 board) • IC301 is faulty. (A board) • No connection A board to C6 board. 	<ul style="list-style-type: none"> • No raster is generated. • CRT cathode current detection reference pulse output is small.
• Micro reset	—	101:00 or 101:001~225	<ul style="list-style-type: none"> • Discharge CRT (C6 Board) • Static discharge • External noise 	<ul style="list-style-type: none"> • Power is shut down shortly, after this return back to normal. • Detect Micro latch up.

Note 1: If a + B overcurrent is detected, stoppage of the vertical deflection is detected simultaneously.

The symptom that is diagnosed first by the microcontroller is displayed on the screen.

Note 2: Refer to screen (G2) Adjustment in section 3-4 of this manual.

2. DISPLAY OF STANDBY/TIMER LIGHT FLASH COUNT



<u>Diagnostic Item</u>	<u>Flash Count*</u>
+B overcurrent/overvoltage Vertical deflection stopped	2 times
White balance failure	5 times

* One flash count is not used for self-diagnostic.

3. STOPPING THE STANDBY/TIMER FLASH

Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/TIMER lamp from flashing.

4. SELF-DIAGNOSTIC SCREEN DISPLAY

For errors with symptoms such as “power sometimes shuts off” or “screen sometimes goes out” that cannot be confirmed, it is possible to bring up past occurrences of failure for confirmation on the screen:

[To Bring Up Screen Test]

In standby mode, press buttons on the remote commander sequentially in rapid succession as shown below:

Screen display ➡ channel [5] ➡ Sound volume [-] ➡ Power ON



Note that this differs from entering the service mode (mode volume $\boxed{+}$).

Self-Diagnosis screen display

SELF DIAGNOSTIC	
002 : 000	← Numeral "0" means that no fault has been detected.
003 : 000	
004 : 000	
005 : 001	← Numeral "1" means a fault has been detected.
101 : 000	

5. HANDLING OF SELF-DIAGNOSTIC SCREEN DISPLAY

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen during repairs. When you have completed the repairs, clear the result display to "0".

Unless the result display is cleared to "0", the self-diagnostic function will not be able to detect subsequent faults after completion of the repairs.

[Clearing the result display]

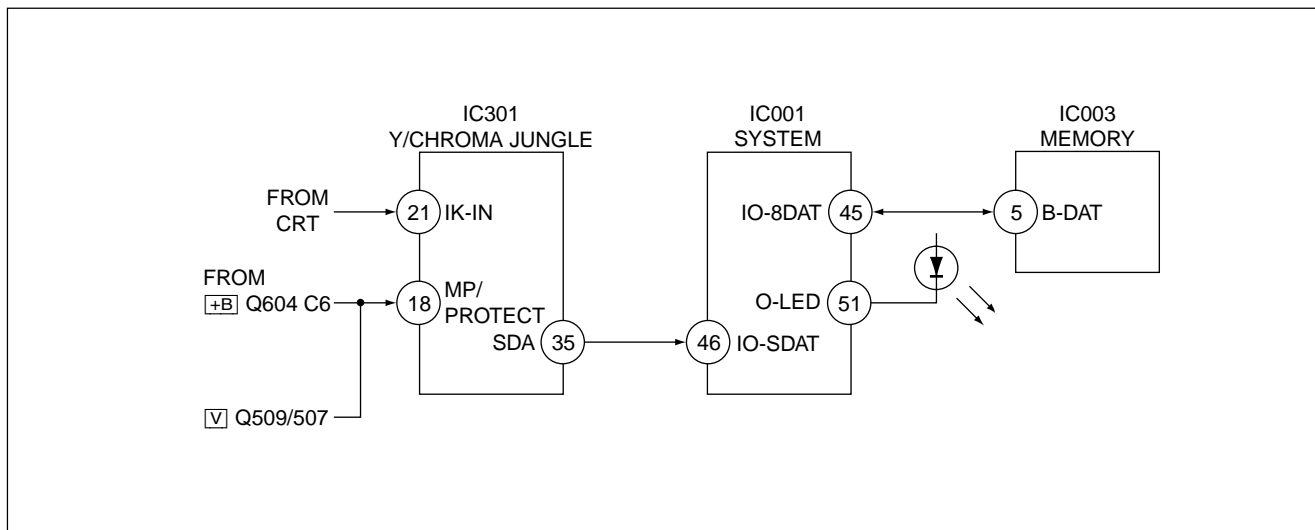
To clear the result display to “0”, press buttons on the remote commander sequentially as shown below when the diagnostic screen is being displayed.

Channel **8** ➔ 0

[Quitting Self-diagnostic screen]

To quit the entire self-diagnostic screen, turn off the power switch on the remote commander or the main unit.

6. SELF-DIAGNOSTIC CIRCUIT

**+B overcurrent (OCP)**

Occurs when an overcurrent on the +B(135) line is detected by Q604. If Q604 goes to ON and the voltage to pin 18 of IC301 should go down when V.SYNC is more than seven verticals in a period, the unit will automatically turn off.

Vertical deflection stopped

Occurs when an absence of the vertical deflection pulse is detected by Q509 and IC001 shut down the power supply.

Vertical deflection overcurrent

Occurs when an overcurrent on V drive line is detected by Q507. Power supply will be shut down when detected by IC001.

White balance failure

If the RGB levels* do not balance or become low level within 5 seconds, this error will be detected by IC301. TV will stay on, but there will be no picture.

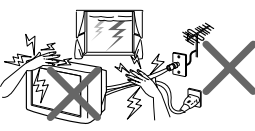

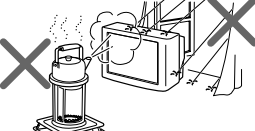
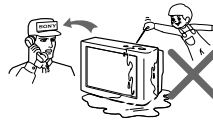
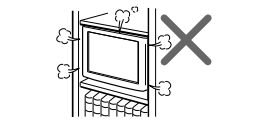
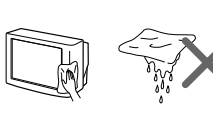
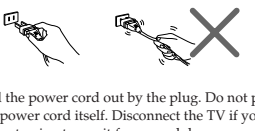
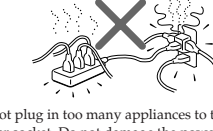
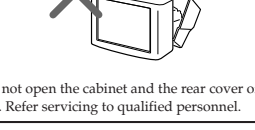
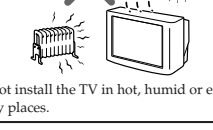
* (Refers to the RGB levels of the AKB detection Ref pulse that detects IK.)

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

SECTION 1 GENERAL

WARNING

- Dangerously high voltages are present inside the TV.
- Operate the TV only between 110 – 240 V AC. (For Malaysia only: 220 – 240 V AC).

 <p>For your own safety, do not touch any part of the TV, the power cord and the antenna cable during lightning storms.</p>	 <p>Install the TV in a stable position. Do not allow children to climb onto it.</p>
 <p>To prevent fire or shock hazard, do not expose the TV to rain or moisture.</p>	 <p>Do not operate the TV if any liquid or solid object falls into it. Have it checked immediately by qualified personnel only.</p>
 <p>Do not install the TV in a confined space, such as a bookcase or built-in cabinet. Do not block the ventilation openings of the TV.</p>	 <p>Clean the TV with a dry and soft cloth. Do not use benzene, thinner, or any other chemicals to clean the TV. Do not scratch the picture tube.</p>
 <p>Pull the power cord out by the plug. Do not pull the power cord itself. Disconnect the TV if you are not going to use it for several days.</p>	 <p>Do not plug in too many appliances to the same power socket. Do not damage the power cord.</p>
 <p>Do not open the cabinet and the rear cover of the TV. Refer servicing to qualified personnel.</p>	 <p>Do not install the TV in hot, humid or excessively dusty places.</p>

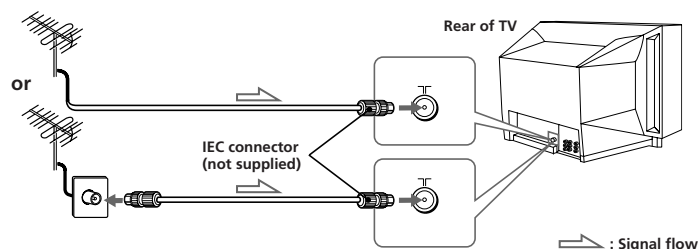
Using Your New TV

Getting Started

Step 1

Connect the antenna


If you wish to connect a VCR, see the "Connecting a VCR" diagram below.

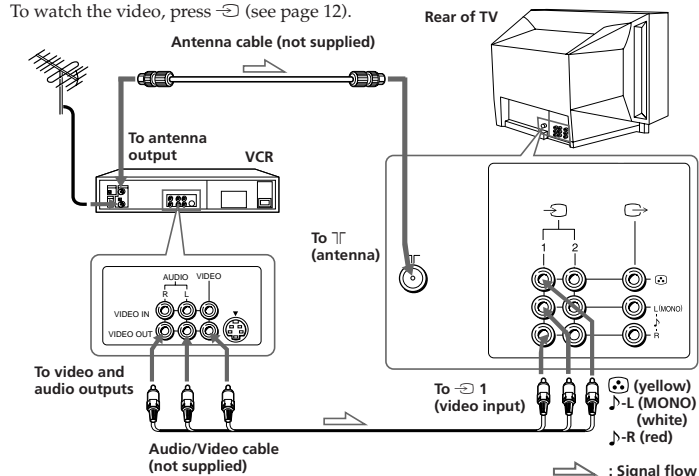


CAUTION

Do not connect the power cord until you have completed making all other connections; otherwise a minimum leakage current might flow through the antenna and other terminals to ground.

Connecting a VCR

To watch the video, press  (see page 12).

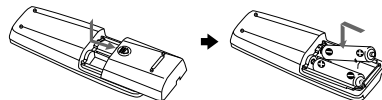


Notes

- If you connect a monaural VCR, connect the yellow plug to (the yellow jack) and the black plug to (MONO) (the white jack).
- If you connect a VCR to the (antenna) terminal, preset the signal output from the VCR to the program number 0 on the TV.
- Do not connect video equipment to the 2 (video input) jacks at the front and the rear of your TV at the same time; otherwise the picture will not be displayed properly on the screen.
- When no signal is input to the connected video equipment, the TV screen becomes blue.

Step 2

Insert the batteries into the remote

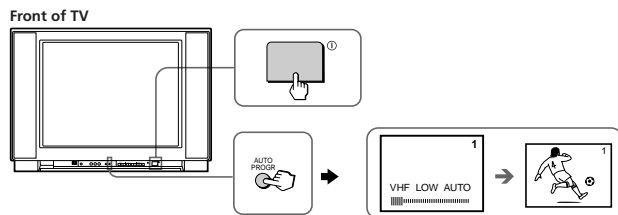


Note

- Do not use old batteries nor use different types of batteries together.

Step 3

Preset the channels automatically



Tips

- If you want to stop automatic channel presetting, press SELECT twice.
- If your TV has preset an unwanted channel or cannot preset a particular channel, then preset your TV manually (see page 9).

Note

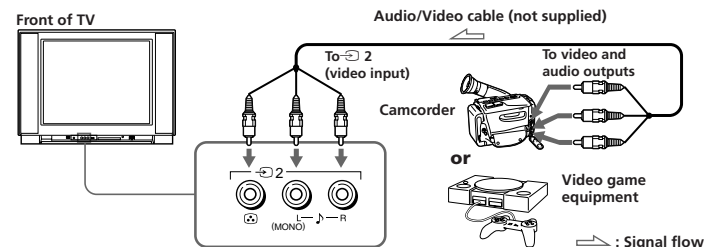
- During automatic channel presetting, your TV screen will indicate "B/G", "I", "D/K" or "M" for the TV system.

Connecting optional components

You can connect optional audio/video components, such as a VCR, multi disc player, camcorder, video game or stereo system.

To watch the picture of the connected equipment, press (see page 12).

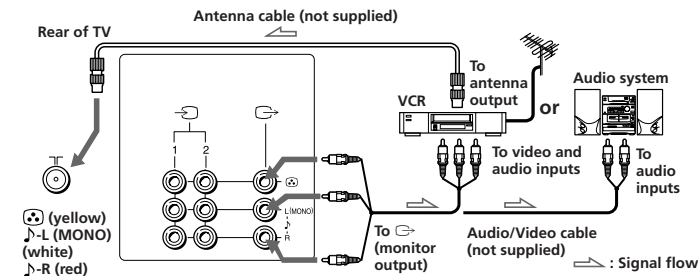
Connecting a camcorder/video game equipment using the 2 (video input) jacks



Notes

- You can also connect video equipment to the 1 or 2 (video input) jacks at the rear of your TV.
- Do not connect video equipment to the 2 (video input) jacks at the front and the rear of your TV at the same time; otherwise the picture will not be displayed properly on the screen.

Connecting audio/video equipment using the (monitor output) jacks



Note

- When connecting a monaural VCR, connect the yellow plug to (the yellow jack) and the black plug to (MONO) (the white jack).

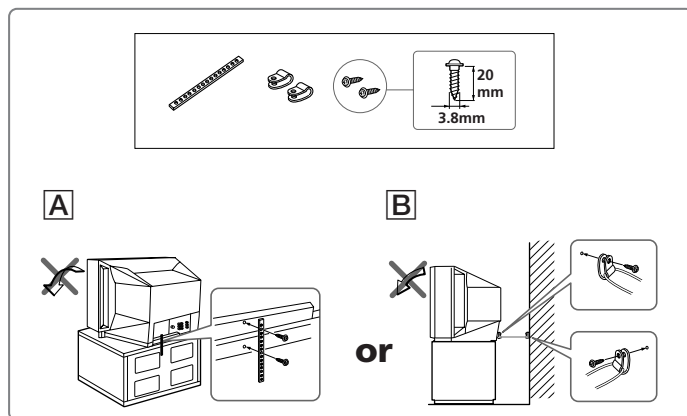
Securing the TV

To prevent the TV from falling, secure the TV using one of the following methods:

- A** With the supplied screws, attach the band to the TV stand and to the rear of the TV using the provided hole.

or

- B** Put the cord or chain through the clamps to secure the TV against a wall or pillar.



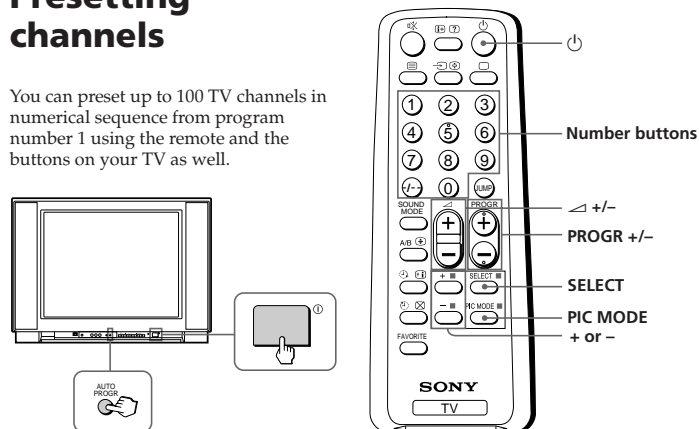
Note

- Use only the supplied screws. Use of other screws may damage the TV.

Using Your New TV

Presetting channels

You can preset up to 100 TV channels in numerical sequence from program number 1 using the remote and the buttons on your TV as well.



Presetting channels automatically

- 1** Press ① to turn on the TV.



- 2** Press AUTO PROGR.



VHF LOW AUTO

Note (KV-XG29M50 only)

- During automatic channel presetting, your TV screen will indicate "B/G", "I", "D/K" or "M" for the TV system.

To preset channels automatically from a specified program number

- Press SELECT until "AUTO PROGRAM" appears.
- Press + or -.
The on-screen display will start flashing.
- Press PROGR +/- or the number buttons until the desired program number appears.
- Press + or -.

Presetting channels manually

- 1 Press SELECT until "MANUAL PROGRAM" appears.
- 2 Press + or –.
- 3 Press PROGR +/- or the number buttons until the desired program number appears.
- 4 Press + or – until the desired channel picture appears.
- 5 Press SELECT.

Note

- If you preset a locked channel, that particular channel will be unlock automatically (page 17).

To change the TV system setting

If the picture or sound is abnormal when receiving programs through the ㄗ (antenna) terminal

- (1) Press SELECT until "TV SYS" appears.



- (2) Press + or – to select the appropriate TV system until the picture or sound quality is optimal.

continued

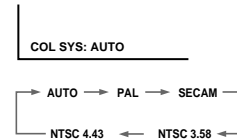
Using Your New TV 9

Presetting channels (continued)

To change the color system setting

If the color is abnormal when receiving programs through the ㄗ (antenna) terminal or the ㉔ (video input) jack

- (1) Press SELECT until "COL SYS" appears.



- (2) Press + or – to select the appropriate color system until the color is optimal.

Tip

- Normally set "COL SYS" to "AUTO".

Skipping program numbers

- 1 Press PROGR +/- or the number buttons until the unused or unwanted program number appears.
- 2 Press SELECT until "MANUAL PROGRAM" appears.
- 3 Press + or –.
- 4 Press PIC MODE.
- 5 Press SELECT.

To preset the skipped program number again

Preset the channel automatically or manually.

Tip

- You can also use SELECT and ㄏ +/- on the TV to preset channels and skip program numbers.

To use the fine tuning (FINE) function

The fine tuning (FINE) function may help to reduce the following problems: incomplete Teletext display (KV-XG29M61 only), double images and lines moving across the TV screen.

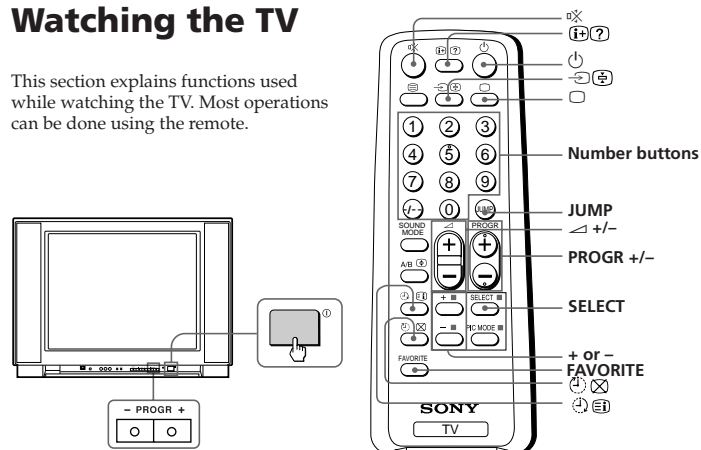
You can use the fine tuning function as below:

- (1) Select the program number you want to adjust.
- (2) Press SELECT until "MANUAL PROGRAM" appears on the screen.
- (3) Press + or – on the remote control once.
- (4) Press ㉔ to display "FINE" on the screen.
- (5) Press + or – continuously until the above problems are minimized. The + or – icon on the screen flashes while tuning.
- (6) Press SELECT to return to normal screen.

10 Using Your New TV

Watching the TV

This section explains functions used while watching the TV. Most operations can be done using the remote.



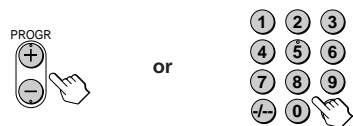
1 Press ① to turn on the TV.

When the TV is in the standby mode (the ① indicator on the TV is lit red), press ① on the remote or PROGR +/- on the TV.



2 Press PROGR +/- or the number buttons to select the TV program.

For double digit numbers, press +/-, then the number (e.g., for 25, press +/-, then 2 and 5).



3 Press ④ +/- to adjust the volume.



Watching the TV (continued)

Additional tasks

To	Do this
Turn off temporarily	Press ①. The ① indicator on the TV lights up red.
Turn off completely	Press ① on the TV.
Mute the sound	Press ①.
Watch the video input (VCR, camcorder, etc.)	Press ① to select "VIDEO 1" or "VIDEO 2". To return to the TV program, press ①.
Jump back to the previous channel	Press JUMP.
Display the on-screen information*	Press ①.
Adjust the volume of each TV program automatically	Press SELECT repeatedly until "INTELLIGENT VOL" appears, then press + or - to select "ON". To cancel, select "OFF".
Adjust the picture position when it is not aligned to the TV screen	Press SELECT repeatedly until "PIC ROTATION" appears, then press + or - to adjust the alignment of the picture position.

PIC ROTATION ④④④④

The ④ or ④ icon on the screen flashes while adjusting.

* The picture, sound, and either the program number or video mode are displayed. The on-screen display for the picture and sound information disappears after about 3 seconds.

Changing the on-screen display language

1 Press SELECT until "LANGUAGE / 语言:" ENGLISH" appears on the screen.



2 Press + or - to select "中文".





Tip

- You can also use SELECT and ④ +/- on the TV to select the on-screen display language.

continued

Setting the Wake Up timer

- Press  until the desired period of time appears.
The Wake Up timer starts immediately after you have set it.
- Select the TV program or video mode you want to display when you wake up.
- Press  or set the Sleep timer if you want the TV to turn off automatically.

The  indicator on the TV lights up orange.


To cancel the Wake Up timer

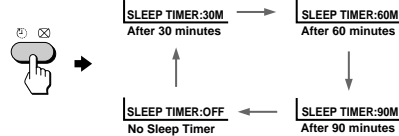
Press  until "WAKE UP TIMER: OFF" appears or turn off the TV's main power.

Note

- If no buttons or controls are pressed for more than two hours after the TV is turned on using the Wake Up timer, the TV automatically goes into the standby mode. To continue watching the TV, press any button or control on the TV or the remote.

Setting the Sleep timer

Press  until the desired period of time appears.
The Sleep timer starts immediately after you have set it.



To cancel the Sleep timer

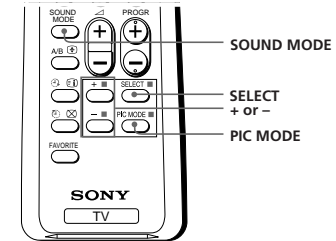
Press  until "SLEEP TIMER: OFF" appears or turn the TV off.

Advanced Operations

Customizing the picture and sound

You can customize the picture and sound by selecting the picture and sound modes or by adjusting its settings.

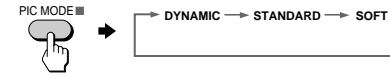
You can change the sound effect by selecting the surround mode.



Selecting the picture and sound modes

To select the picture mode

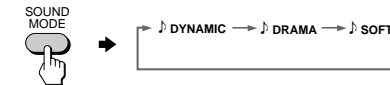
Press PIC MODE repeatedly until you get the desired picture mode.



Select	To
"DYNAMIC"	receive high contrast pictures.
"STANDARD"	receive normal contrast pictures.
"SOFT"	receive mild pictures.

To select the sound mode

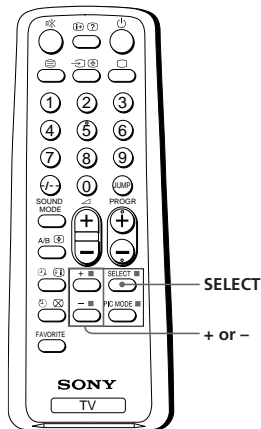
Press SOUND MODE repeatedly until you get the desired sound mode.



Select	To
"DYNAMIC"	listen to dynamic and clear sound that emphasizes the low and high sound.
"DRAMA"	listen to sound that emphasizes vocals and background music.
"SOFT"	receive soft sound.

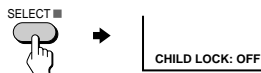
Blocking the channels (CHILD LOCK)

You can prevent a child from watching certain channels by using the buttons on the remote control.



1 Select the channel you want to lock.

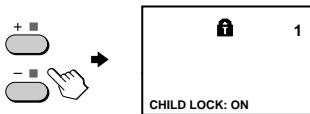
2 Press SELECT until "CHILD LOCK" appears on the screen.



3 Press + or - to select "ON".

The symbol appears on the screen.

To unlock the channel, press + or - to select "OFF". The symbol disappears from the screen.



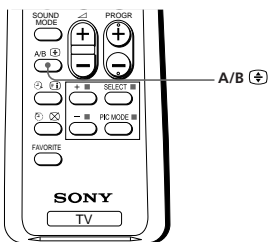
Note

- If you preset a locked channel, that particular channel will be unlocked automatically (page 8).

Enjoying stereo or bilingual programs

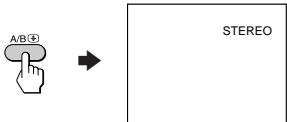
(KV-XG29M61 only)

You can enjoy stereo sound or bilingual programs of NICAM and A2 (German) stereo systems.



Press A/B repeatedly until you receive the sound you want.

The on-screen display changes to show the selected sound and the indicator on the TV lights up red.



When receiving a NICAM program

Broadcasting	On-screen display (Selected sound)	
NICAM stereo	NICAM (Stereo sound)	MONO (Regular sound)
NICAM bilingual	NICAM MAIN (Main sound)	NICAM SUB (Sub sound)
	MONO (Regular sound)	
NICAM monaural	NICAM MAIN (Main sound)	MONO (Regular sound)

When receiving an A2 (German) program

Broadcasting	On-screen display (Selected sound)
A2 (German) stereo	<div> <div>MONO (Regular sound)</div> <div>STEREO (Stereo sound)</div> </div>
A2 (German) bilingual	<div> <div>MAIN (Main sound)</div> <div>SUB (Sub sound)</div> </div>

Receiving area for NICAM and A2 (German) programs

System	Receiving area
NICAM	Hong Kong, Singapore, New Zealand, Malaysia, Thailand, etc.
A2 (German)	Australia, Malaysia, Thailand, etc.

Notes

- If the signal is very weak, the sound becomes monaural automatically.
- If the stereo sound is noisy when receiving a NICAM program, select "MONO". The sound becomes monaural, but the noise is reduced.

If the sound is distorted or noisy when receiving a monaural program through the ㄗ (antenna) terminal

Press A/B repeatedly until "MONO" appears on the screen.
To cancel the monaural sound setting, press A/B again until "AUTO" appears on the screen.

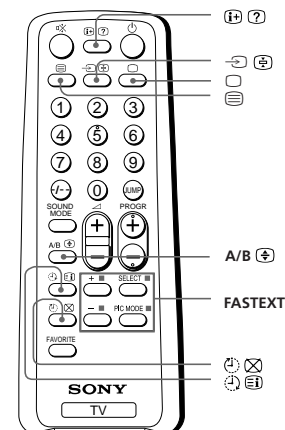


Notes

- The "MONO" or "AUTO" setting is memorized for each program position.
- You cannot receive stereo broadcast signal when the TV is in the "MONO" setting. Normally set the TV to "AUTO."

Viewing Teletext (KV-XG29M61 only)

TV stations broadcast an information service called Teletext via some TV channels. Teletext allows you to receive various information, such as shares market or news.

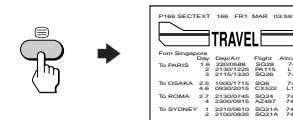


Displaying Teletext

1 Select a TV channel that carries the Teletext broadcast you want to watch.

2 Press ㄢ to display the text.













A Teletext page (normally the index page) is displayed. If there is no Teletext broadcast, "100" is displayed at the top left corner of the screen.



To turn off Teletext

Press ㄢ.

Additional Teletext tasks

To	Do this
display a Teletext page on the TV picture	Press  . Each time you press  , the screen changes as follows: Teletext → Teletext and TV → TV.
check the contents of a Teletext service	Press  . An overview of the Teletext contents and page numbers appear on the screen.
select a Teletext page	Press the number buttons to enter the three-digit page number of the desired Teletext page.* If you make a mistake, reenter the correct page number. To access the next or previous page, press PROGR +/-.
hold a Teletext page (stop the page from scrolling)	Press  to display the symbol “  ” at the top left corner of the screen. To resume normal Teletext operation, press  or  .
reveal concealed information (e.g., an answer to a quiz)	Press  . To conceal the information, press the button again.
enlarge the Teletext display	Press  . Each time you press  , the Teletext display changes as follows: Enlarge upper half → Enlarge lower half → Normal size.
wait for a Teletext page while watching a TV program	1 Enter the Teletext page number that you want to refer to, then press  . 2 When the page number is displayed, press  to show the text.

* You can also select a Teletext page of any page number that appears in the colored column at the bottom of the screen using the corresponding color-coded button on the remote.

Using FASTEXT

This feature allows you to quickly access a Teletext page that uses FASTEXT. When a FASTEXT program is broadcasted, the colored menus appear at the bottom of the screen. The colors of the menus correspond to the red, green, yellow, and blue color-coded buttons on the remote.

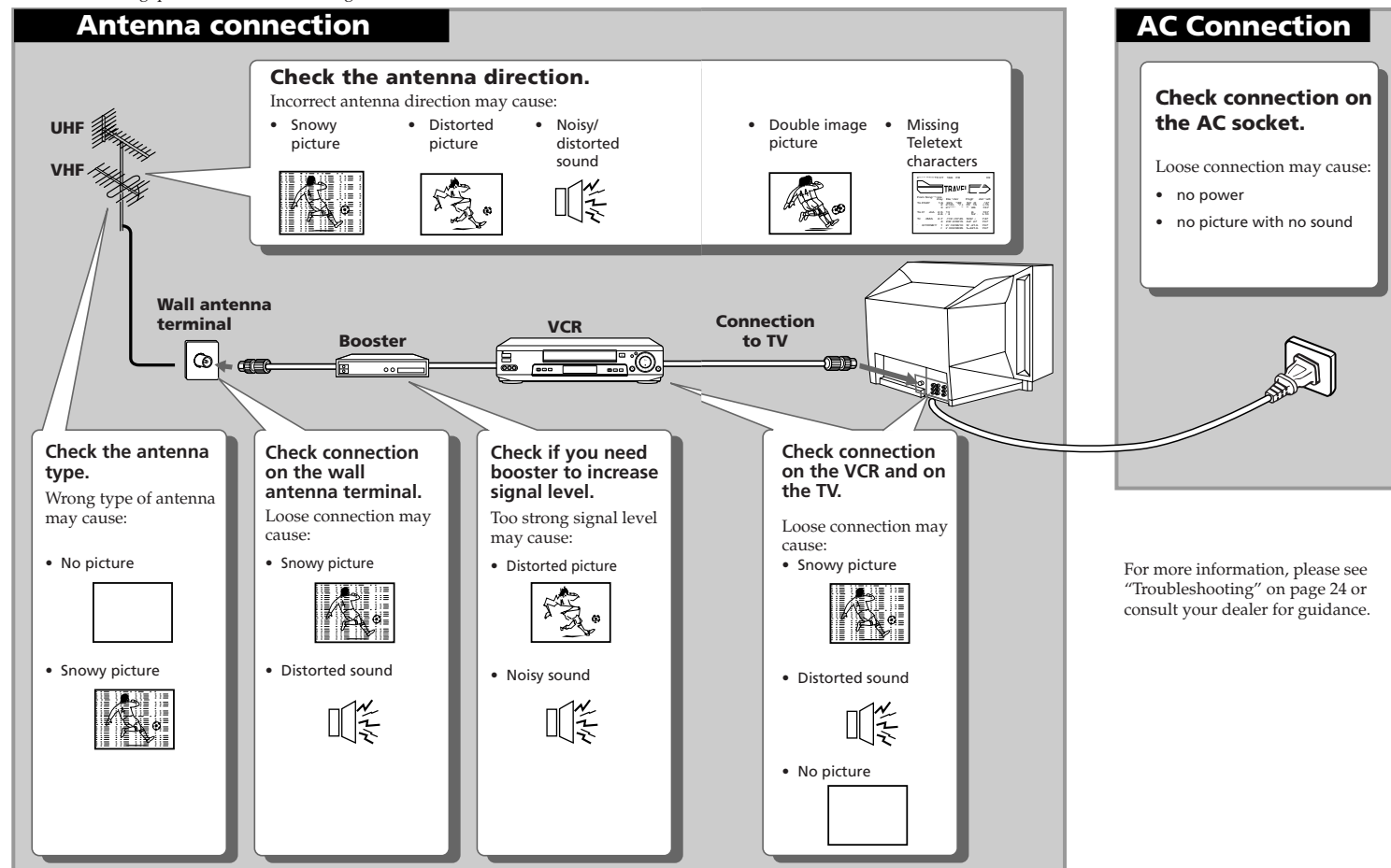
To access a FASTEXT menu

Press the color-coded button on the remote corresponding to the menu you want. The menu page appears on the screen after several seconds.

Additional Information

Troubleshooting Shortcuts







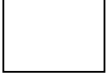

For better viewing, please check the following connections.









Additional Information

Troubleshooting


If you find any problem while viewing your TV, please check the following guide. If any problem persists, contact your Sony dealer.

Symptom	Possible cause	Solutions	Page
Snowy picture 	<ul style="list-style-type: none"> Connection is loose or the cable is damaged. 	<ul style="list-style-type: none"> Check the antenna cable and connection on the TV, VCR and on the wall. 	4
	<ul style="list-style-type: none"> Channel presetting is inappropriate or incomplete. 	<ul style="list-style-type: none"> Press SELECT until "MANUAL PROGRAM" appears on the screen, then preset the channel again. 	9
Noisy sound 	<ul style="list-style-type: none"> The antenna type is inappropriate. 	<ul style="list-style-type: none"> Check the antenna type (VHF/UHF). Contact a Sony dealer for advice. 	–
	<ul style="list-style-type: none"> The antenna direction is inappropriate. 	<ul style="list-style-type: none"> Adjust the antenna direction. Contact a Sony dealer for advice. 	–
	<ul style="list-style-type: none"> Signal transmission is low. 	<ul style="list-style-type: none"> Try using a booster. 	–
Distorted picture 	<ul style="list-style-type: none"> Broadcast signals are too strong. 	<ul style="list-style-type: none"> Turn off or disconnect the booster if it is in use. 	–
Noisy sound 			
Good picture 	<ul style="list-style-type: none"> The TV system setting or channel presetting is inappropriate or incomplete. 	<ul style="list-style-type: none"> If the sound of all the channels are noisy, check the TV system (TV SYS) setting, then press AUTO PROGR to preset the channels again. 	8
Noisy sound 		<ul style="list-style-type: none"> If the sound of some channels are noisy, select the channel, then select the appropriate TV system (TV SYS). 	9
No picture 	<ul style="list-style-type: none"> The power cord, antenna or VCR is not connected. 	<ul style="list-style-type: none"> Check the power cord, antenna and the VCR connections. 	4
	<ul style="list-style-type: none"> The TV is not turned on. 	<ul style="list-style-type: none"> Press (power). 	12
No sound 		<ul style="list-style-type: none"> Press (main power) on the TV to turn off the TV for about five seconds, then turn it on again. 	11

Symptom	Possible cause	Solutions	Page
Good picture 	<ul style="list-style-type: none"> The volume level is too low. 	<ul style="list-style-type: none"> Press \triangle + to increase the volume level. 	12
	<ul style="list-style-type: none"> The sound is muted. 	<ul style="list-style-type: none"> Press \square to cancel the muting. 	12
No sound 	<ul style="list-style-type: none"> Broadcast signal has a transmission problem. 	<ul style="list-style-type: none"> Press A/B until a better sound is heard. 	18
Dotted lines or stripes 	<ul style="list-style-type: none"> There is local interference from cars, neon signs, hair dryers, power generators, etc. 	<ul style="list-style-type: none"> Do not use a hair dryer or other equipment near the TV. Adjust the antenna direction for minimum interference. Contact a Sony dealer for advice. 	–
Double images or "ghosts" 	<ul style="list-style-type: none"> Broadcast signals are reflected by nearby mountains or buildings. 	<ul style="list-style-type: none"> Use a highly directional antenna. Use the fine tuning (FINE) function. 	10
	<ul style="list-style-type: none"> The antenna direction is inappropriate. 	<ul style="list-style-type: none"> Adjust the antenna direction. Contact a Sony dealer for advice. 	–
	<ul style="list-style-type: none"> Use of a booster is inappropriate. 	<ul style="list-style-type: none"> Turn off or disconnect the booster if it is in use. 	–
No color 	<ul style="list-style-type: none"> The color level setting is too low. 	<ul style="list-style-type: none"> Press SELECT until "COLOR" appears on the screen, then press + or – to adjust the color level. 	15
	<ul style="list-style-type: none"> The color system setting is inappropriate. 	<ul style="list-style-type: none"> Press SELECT until "COL SYS" appears on the screen, then check the color system setting (usually set this to "AUTO"). 	10
	<ul style="list-style-type: none"> The antenna direction is inappropriate. 	<ul style="list-style-type: none"> Adjust the antenna direction. Contact a Sony dealer for advice. 	–
Abnormal color patches 	<ul style="list-style-type: none"> The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV. 	<ul style="list-style-type: none"> Keep external speakers or other electrical equipment away from the TV. Do not move the TV while the TV is turned on. Press (main power) on the TV to turn off the TV for about five minutes, then turn it on again. 	–
TV cannot receive stereo broadcast signal	<ul style="list-style-type: none"> The stereo reception setting is inappropriate. 	<ul style="list-style-type: none"> Press A/B until "AUTO" appears on the screen. 	18

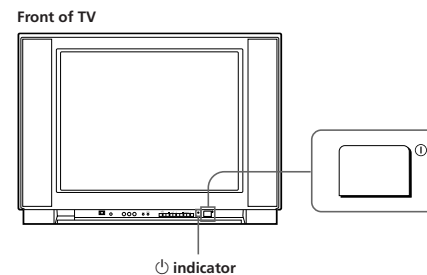
continued

Troubleshooting (continued)

Symptom	Possible cause	Solutions	Page
Stereo broadcast sound switches on and off or is distorted. or The sound switches between monaural and stereo frequently.	<ul style="list-style-type: none"> Connection is loose or the cable is damaged. The antenna direction is inappropriate. Broadcast signal has a transmission problem. 	<ul style="list-style-type: none"> Check the antenna cable and connection on the TV, VCR and on the wall. Adjust the antenna direction. Contact a Sony dealer for advice. Press A/B until a better sound is heard. 	4 — 18
"100" appears on the top of the screen and there is no Teletext display.	<ul style="list-style-type: none"> The channel carries no Teletext broadcast. 	—	20
Teletext display is incomplete (snowy picture or double images).	<ul style="list-style-type: none"> Connection is loose or the cable is damaged. The antenna direction is inappropriate. Signal transmission is too low. 	<ul style="list-style-type: none"> Check the antenna cable and connection on the TV, VCR, and at the wall. Adjust the antenna direction. Contact a Sony dealer for advice. Try using a booster. Use the fine tuning (FINE) function. 	4 — 10
Picture slant 	<ul style="list-style-type: none"> The terrestrial magnetism affects your TV set. 	<ul style="list-style-type: none"> Please "SELECT" until "PIC ROTATION" appears on the screen, then press + or - to aglin the picture to the TV screen. 	12
Lines moving across the TV screen.	<ul style="list-style-type: none"> There is interference from external sources, e.g., heavy machineries, nearby broadcast station. 	<ul style="list-style-type: none"> Use the fine tuning (FINE) function. 	10
The indicator on your TV flashes red a number of times between 3-second intervals.	<ul style="list-style-type: none"> Your TV may .service. 	<ul style="list-style-type: none"> Contact your nearest Sony service center. 	27
TV cabinet creaks.	<ul style="list-style-type: none"> Changes in room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction. 	—	—
A "boom" sound is heard when the TV is turned on.	<ul style="list-style-type: none"> The TV's demagnetizing function is working. This does not indicate a malfunction. 	—	—

Self-diagnosis function

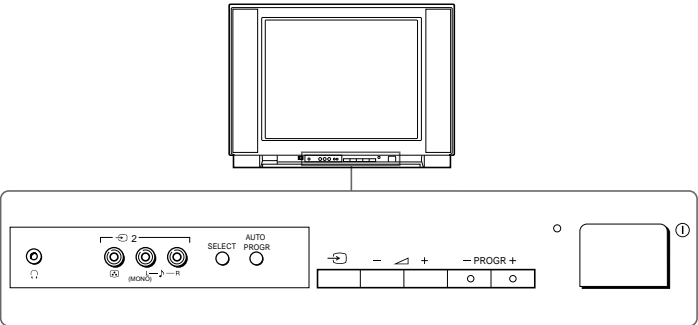
Your TV is equipped with a self-diagnosis function. If there is a problem with your TV, the indicator flashes red. The number of times the indicator flashes indicates the possible causes.



- 1 Check that the indicator flashes red a number of times between 3-second intervals.
- 2 Count the number of times the indicator flashes.
- 3 Press ① (main power) to turn off your TV.
- 4 Inform your nearest Sony service center about the number of times the indicator flashes.
Be sure to note the model name and serial number located on the rear of your TV.

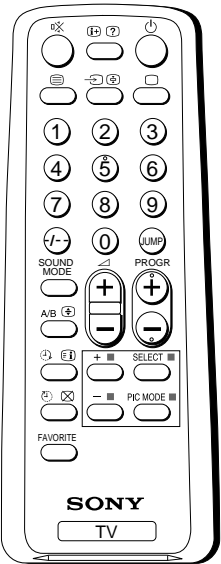
Identifying parts and controls

Front panel



Button	Function	Page
AUTO PROGR	Preset channels automatically.	5
SELECT	Select the desired item.	9
PROGR +/-	Select program number.	11
⓪	Turn off completely or turn on the TV.	11
Δ +/-	Adjust volume.	11
⏮	Select TV or video input.	12
🔊	Headphone jack.	-

Remote Control



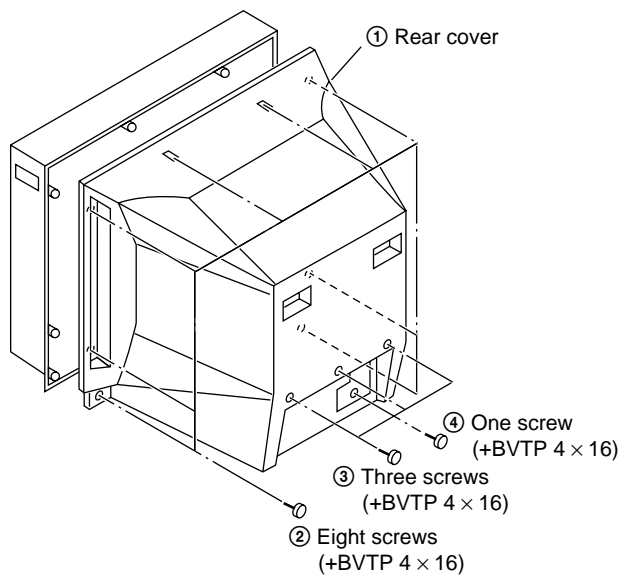
The names/symbols of buttons on the remote are indicated in different colors to represent the available functions.

Label color	Button function
White	For general TV operations
Green	For Teletext operations

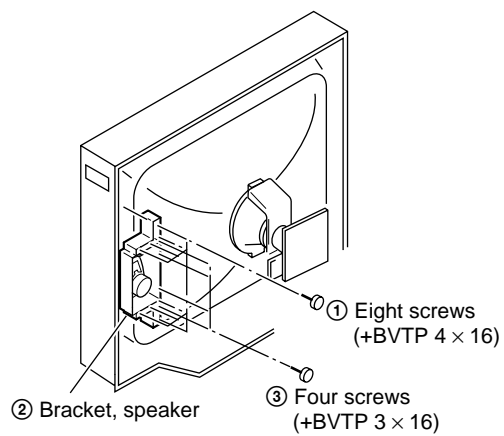
Button	Function	Page
SELECT	Select the desired item.	9
+/-	Adjust value.	9
PROGR +/-	Select program number.	11
0 - 9, +/-	Input numbers.	11
Δ +/-	Adjust volume.	11
⓪	Turn off temporarily or turn on the TV.	12
⏮	Select TV or video input.	12
📺	Display the TV program.	12
🔊	Mute the sound.	12
ℹ	Display on-screen information.	12
JUMP	Jump to previous channel.	12
Timer operations		
⌚	Set TV to turn on automatically.	13
⌚	Set TV to turn off automatically.	13
PIC MODE	Select picture mode.	14
SOUND MODE	Select sound mode.	14
FAVORITE	Display favorite channels.	16
A/B	Select stereo/bilingual mode. (KV-XG29M61 only)	18
Teletext operations (KV-XG29M61 only)		
📰	Display Teletext broadcast.	20
🔍	Enlarge the Teletext display.	21
?	Reveal concealed information.	21
⏹	Stop Teletext page from scrolling.	21
📖	Display Teletext service contents.	21
📺	Show TV screen while waiting for Teletext page.	21
■ (red, green, yellow, blue)	Access a FASTEXT menu.	21

SECTION 2 DISASSEMBLY

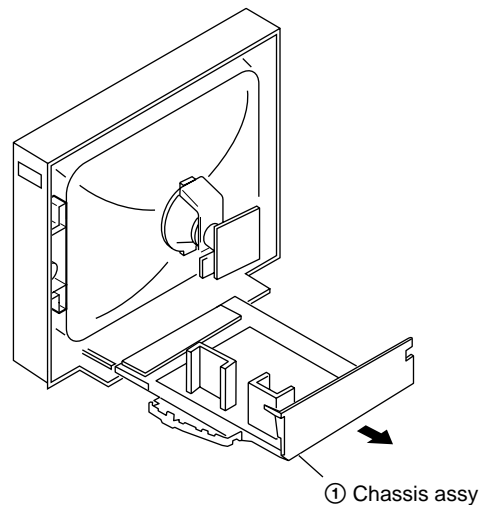
2-1. REAR COVER REMOVAL



2-2. SPEAKER REMOVAL

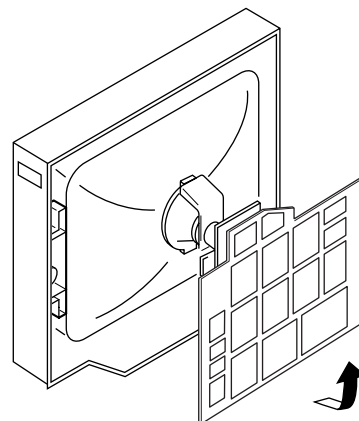


2-3. CHASSIS ASSY REMOVAL



2-4. SERVICE POSITION

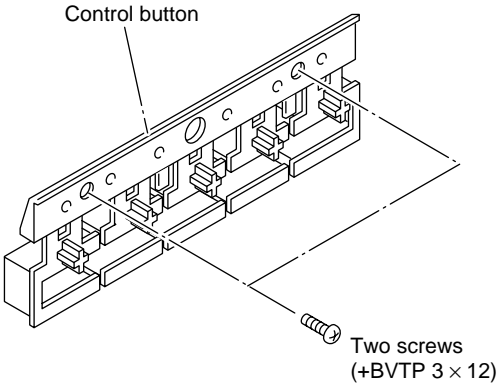
(Note: Remove F Bracket first.)



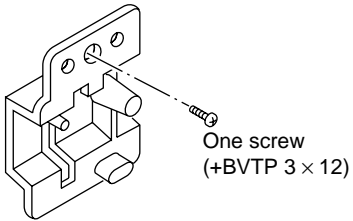
2-5. REPLACEMENT OF PARTS

For replacement of the Control Button and Light Guide, unscrew them, exchange with the new parts, and fix them with screws (+BVTP) respectively.

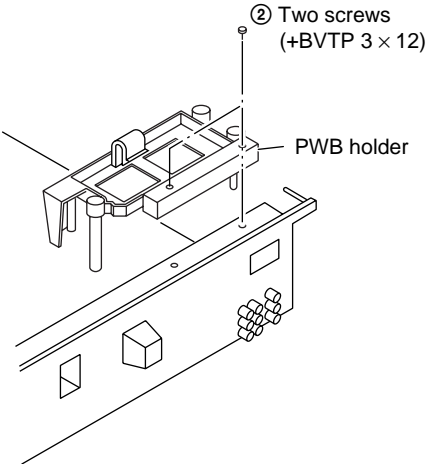
2-5-1. REPLACEMENT OF CONTROL BUTTON



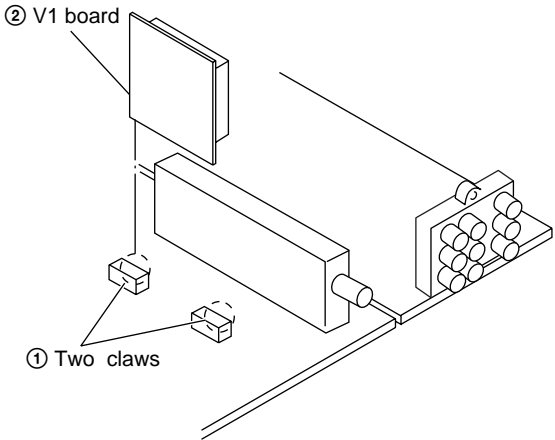
2-5-2. REPLACEMENT OF LIGHT GUIDE



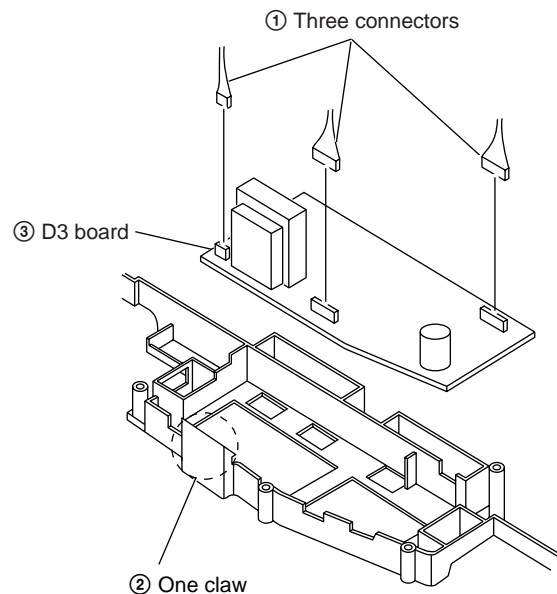
2-6. PWB HOLDER REMOVAL



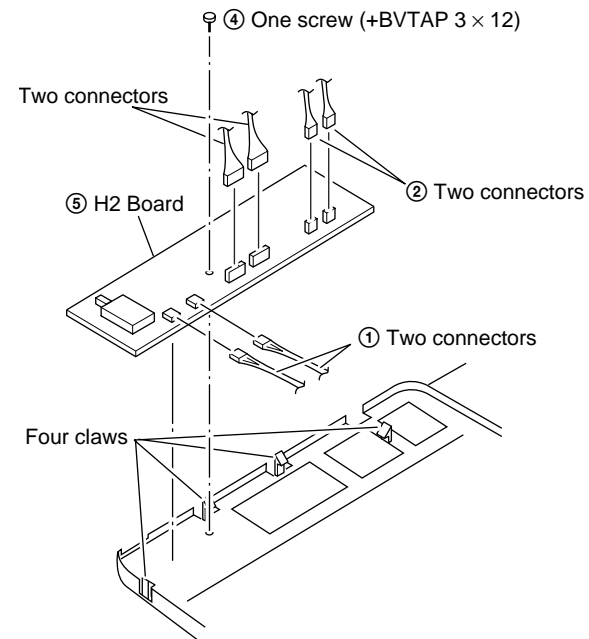
2-7. V1 BOARD REMOVAL



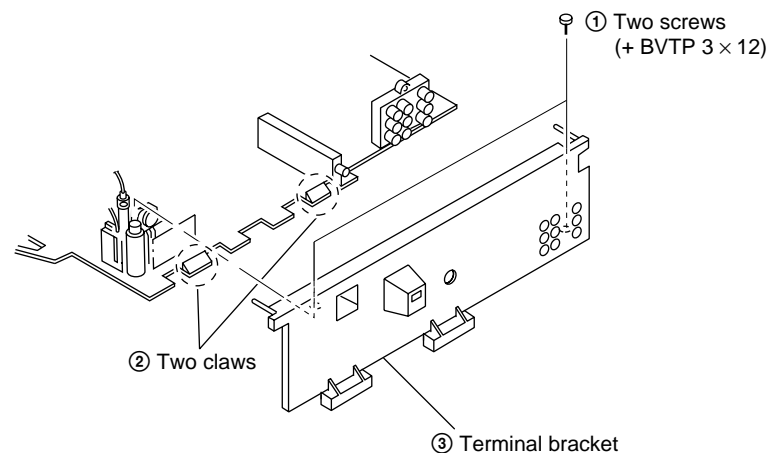
2-8. D3 BOARD REMOVAL



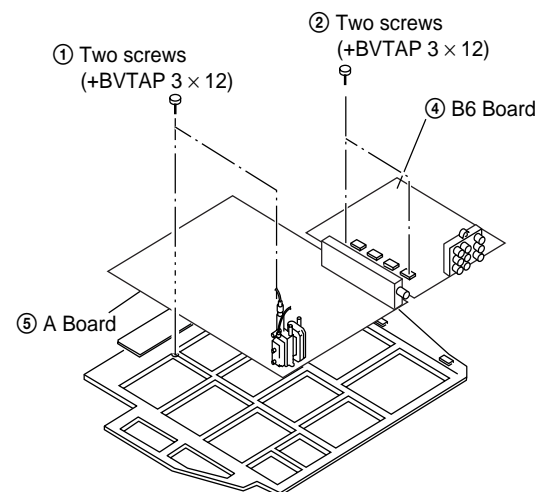
2-10. H2 BOARD REMOVAL



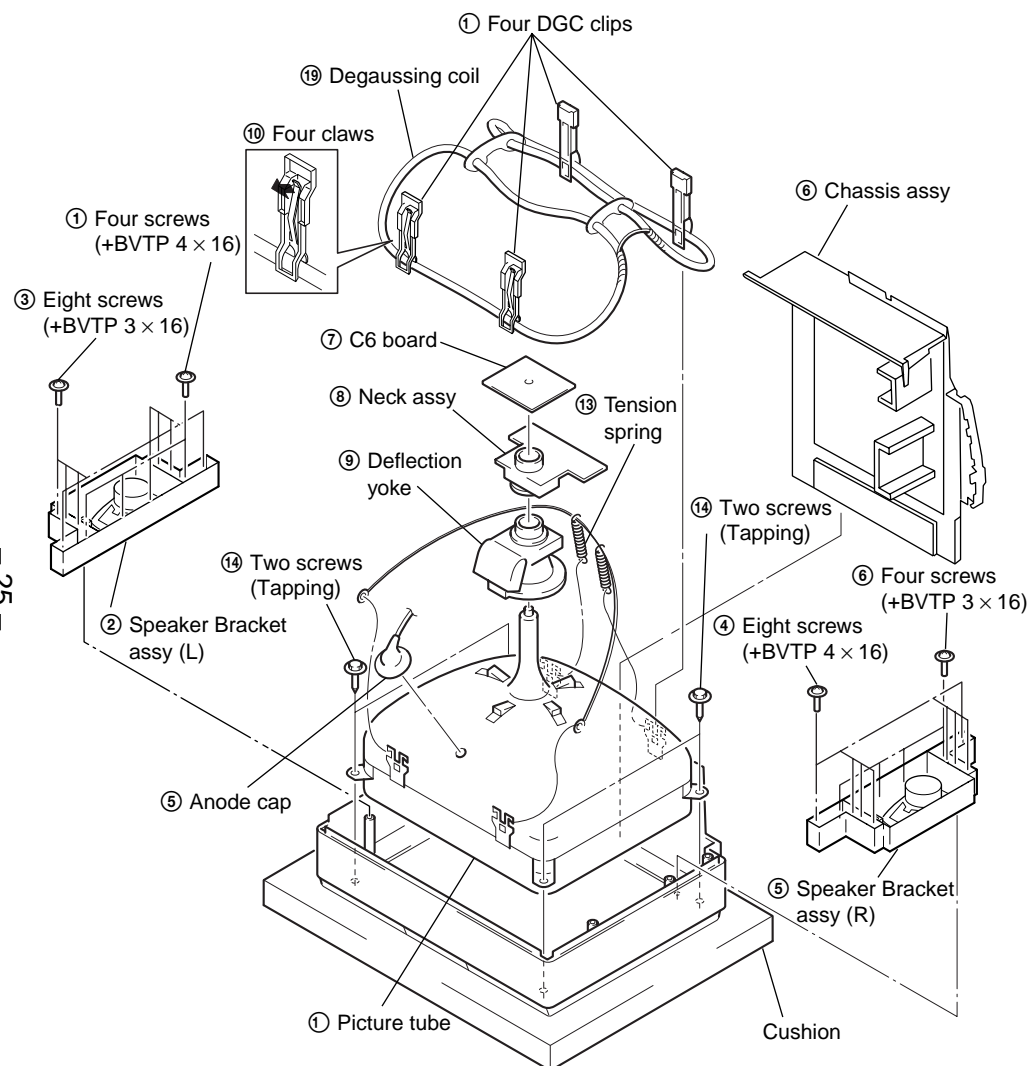
2-9. TERMINAL BRACKET REMOVAL



2-11. A AND B6 BOARDS REMOVAL



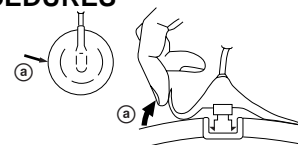
2-12. PICTURE TUBE REMOVAL



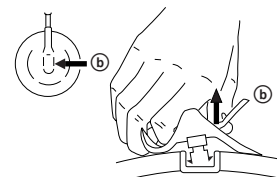
•REMOVAL OF ANODE-CAP

NOTE : After removing the anode, short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT.

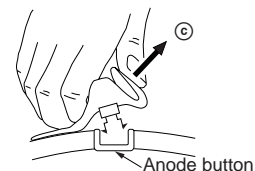
•REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ①.



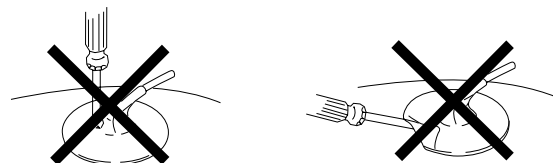
② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ②.



③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ③.

• HOW TO HANDLE AN ANODE-CAP

- ① Do not damage the surface of anode-caps with sharp shaped objects.
- ② Do not press the rubber too hard so as not to damage the inside of anode-cap. A metal fitting called the shatter-hook terminal is built into the rubber.
- ③ Do not turn the foot of rubber over too hard. The shatter-hook terminal will stick out or damage the rubber.



SECTION 3

SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switches should be set as follows unless otherwise noted:

PICTURE control normal
BRIGHTNESS control normal

Perform the adjustments in the following order :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

Note : Test Equipment Required.

1. Color-bar/Pattern Generator
2. Degausser
3. Oscilloscope

Preparation :

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input a white signal with the pattern generator.
Contrast } normal
Brightness }
2. Position neck assy as shown in Fig3-2.
3. Set the pattern generator raster signal to a green raster.
4. Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side.
(See Figures 3-1 through 3-4.)
5. Move the deflection yoke forward and adjust so that the entire screen is green. (See Figure 3-2.)
6. Switch the raster signal to blue, then to red and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws and DY spacers.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it.
(See Figure 3-5.)

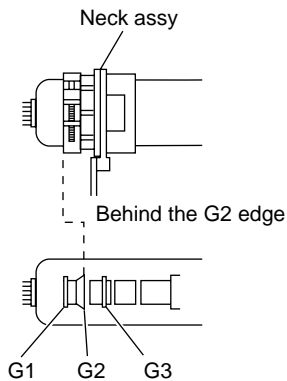


Fig. 3-1

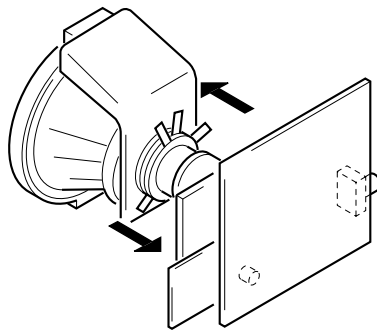


Fig. 3-2

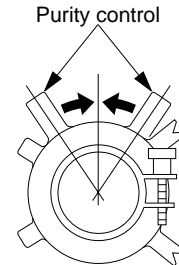


Fig. 3-3

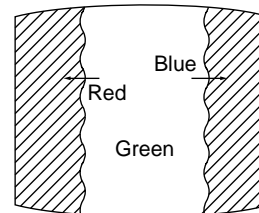


Fig. 3-4

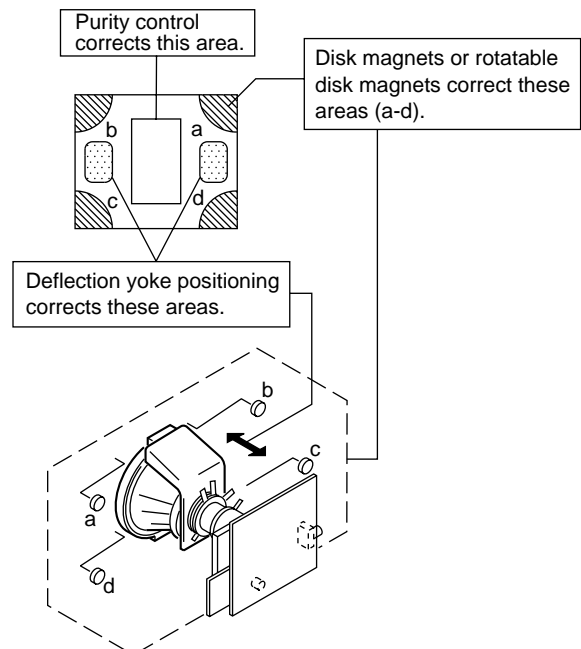


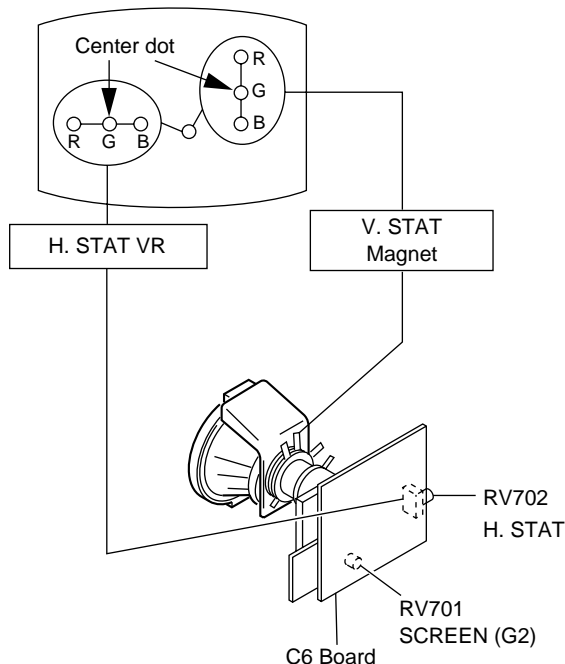
Fig. 3-5

3-2. CONVERGENCE

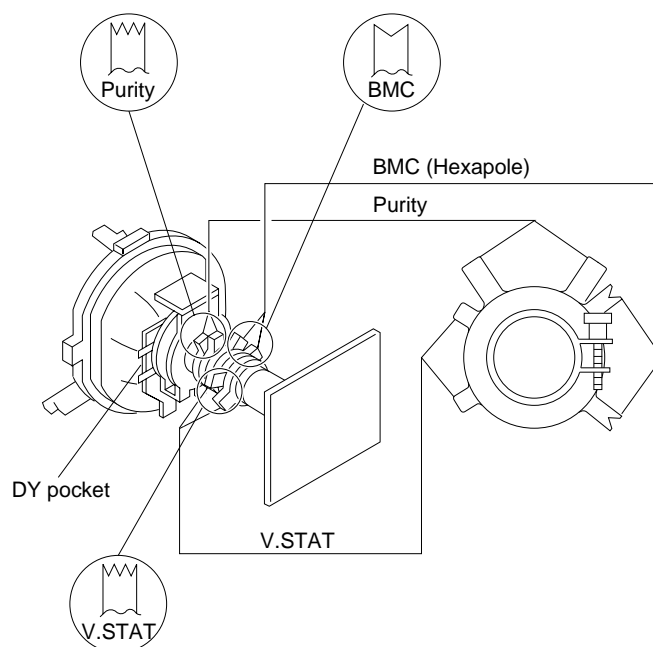
Preparation :

- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

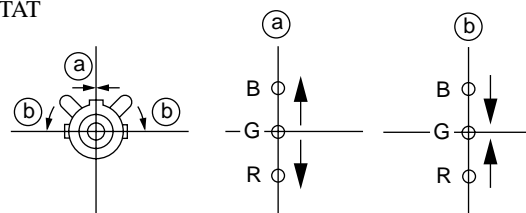
(1) Horizontal and Vertical Static Convergence



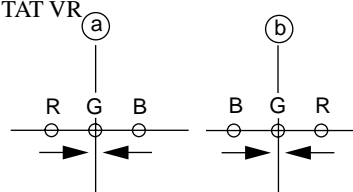
1. (Moving horizontally), adjust the H.STAT control so that the red, green and blue dots are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green and blue dots are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green and blue dots together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
(In this case, the H.STAT variable resistor and the V.STAT magnet influence each other, so be sure to perform adjustments while tracking.)



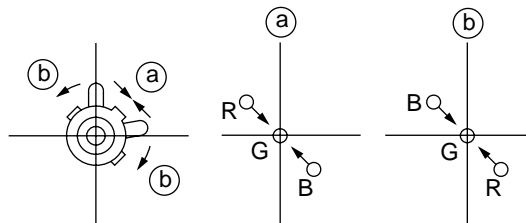
① V. STAT



② H. STAT VR

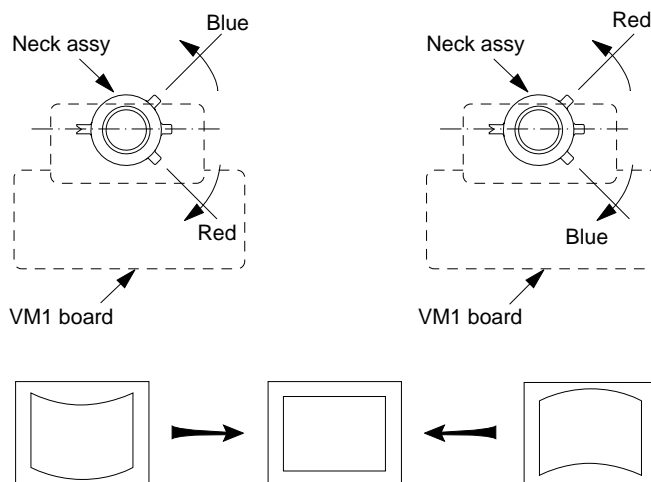
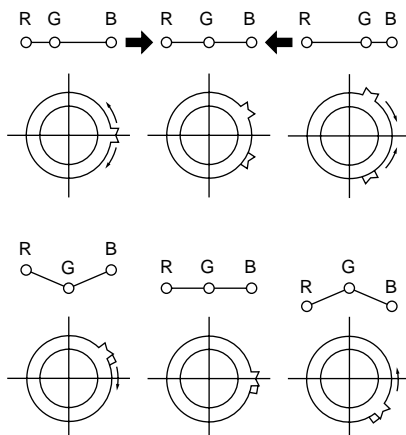


③



④ **BMC (Hexapole) Magnet.**

If the red, green and blue dots are not balanced or aligned, then use the BMC magnet to adjust in the manner described below.



Note

1. The Red and Blue magnets should be equally far from the horizontal center line.
2. Do not separate the Red and Blue magnets too far. (Less than 8 mm)

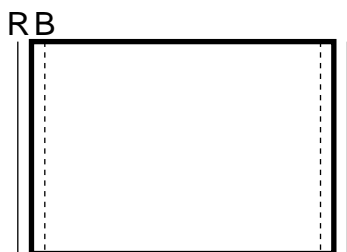
⑤ **Y separation axis correction magnet adjustment.**

1. Receive the cross-hatch signal and adjust [PICTURE] to [MIN] and [BRIGHTNESS] to [STANDARD] .
2. Adjust the Y separation axis correction magnet on the neck assembly so that the horizontal lines at the top and bottom of the screen are straight.

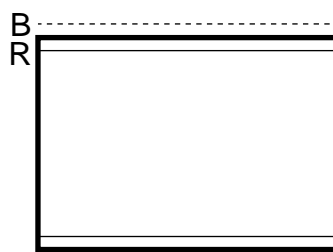
(2) Dynamic Convergence Adjustment

Preparation:

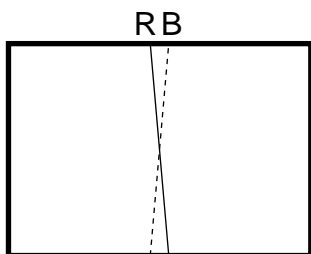
- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence



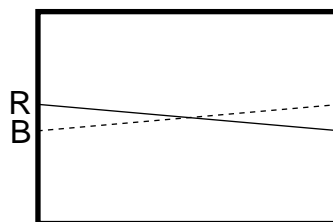
TLH



TLV



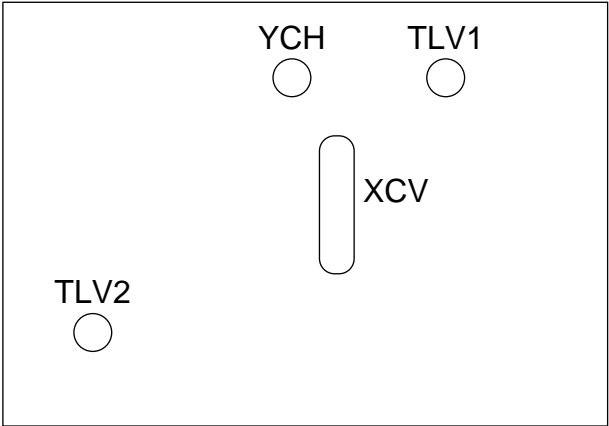
YCH



XCV

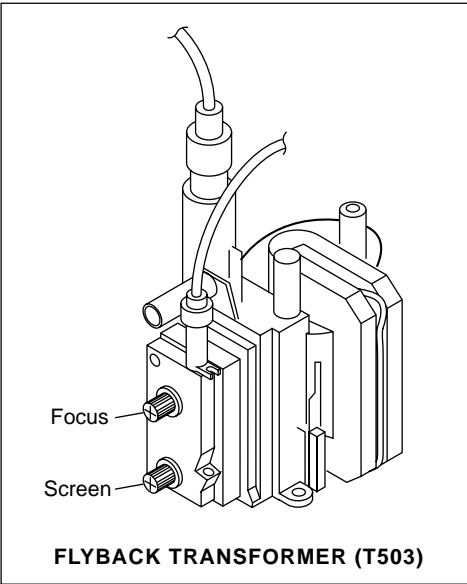
TLV	Rotate	TLV-2	VOL (29", 34") on DY
	Rotate	TLV	VOL (25") on DY
XCV	Rotate	XCV	Adj core on DY
YCH	Rotate	YCH	VOL on DY
TLH	Insert	TLH	Correction Plate to DY Pocket (Left or Right)

ON DY:

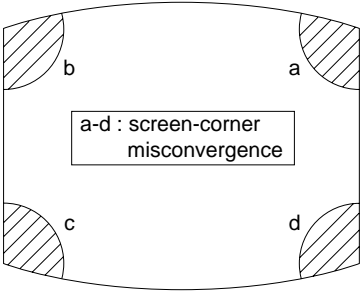


3-3. FOCUS ADJUSTMENT

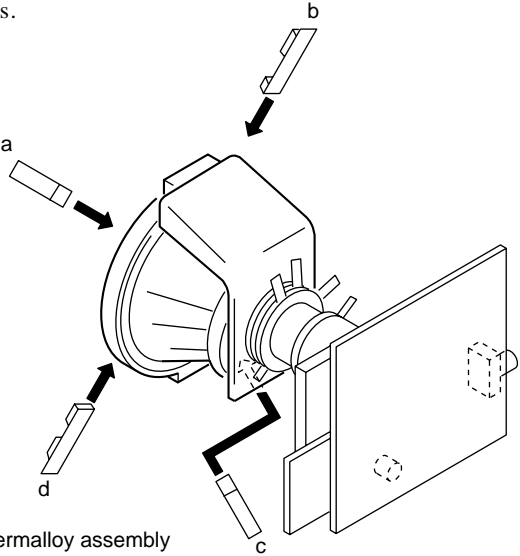
Adjust FOCUS control on the flyback transformer for the best focus.



(3) Screen-corner Convergence



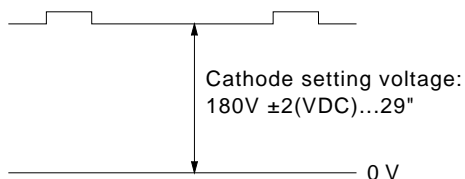
Fix a Permalloy assy corresponding to the misconverged areas.



3-4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

1. G2 (SCREEN) ADJUSTMENT

- 1) Set the PICTURE to normal.
- 2) Put to VIDEO input mode without signals.
- 3) Connect R, G and B of the C6 board cathode to the oscilloscope.
- 4) Adjust BRIGHTNESS to obtain the cathode voltage to the value below.
- 5) Adjust G2 (screen) on the FBT until picture shows the point before cut off.

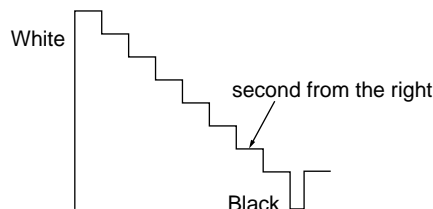


2. WHITE BALANCE ADJUSTMENT

- 1) Set to Service Mode (Refer Section 4-1: ADJUSTMENTS WITH COMMANDER).
- 2) Input white raster signal.
- 3) Set the PICTURE to minimum.
- 4) Select GCT (WHB 4) and BCT (WHB 5) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
- 5) Set the PICTURE to maximum.
- 6) Select GDR (WHB 1) and BDR (WHB 2) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
- 7) Write into the memory by pressing [MUTING] then [0].

3. SUB BRIGHT ADJUSTMENT

- 1) Set to service mode.
- 2) Input a staircase signal of black to white from the pattern generator.
- 3) BRIGHTNESS 50%.
PICTURE MINIMUM
- 4) Select SBR (WHB7) with [1] and [4], and adjust SBR (WHB7) level with [3] and [6] so that the second stripe from the right is dimly lit.



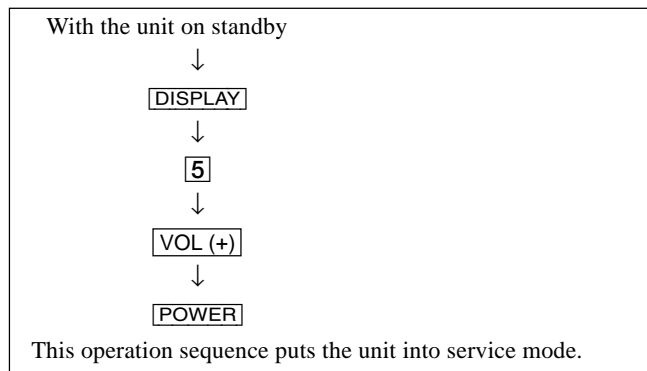
SECTION 4

CIRCUIT ADJUSTMENTS

4-1. ADJUSTMENTS WITH COMMANDER

Service adjustments are made with the RM-952 that comes with this unit.

a. ENTERING SERVICE MODE



b. METHOD OF CANCELLATION FROM SERVICE MODE

Set the standby condition (Press [POWER] button on the commander), then press [POWER] button again, hereupon it becomes TV mode.

c. METHOD OF WRITE INTO MEMORY

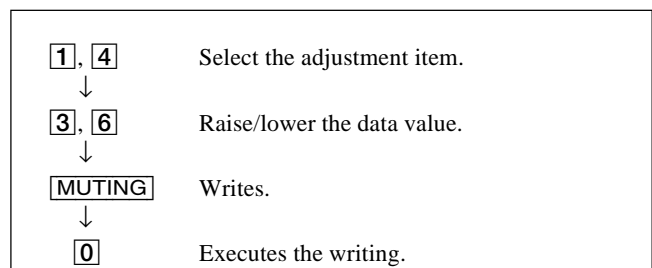
- 1) Set to Service Mode.
- 2) Press [1] (UP) and [4] (DOWN), select an item of adjustment.
- 3) Press [MUTING] button and it will indicate WRITE on the screen.
- 4) Press [0] button to write into memory.

d. MEMORY WRITE CONFIRMATION METHOD

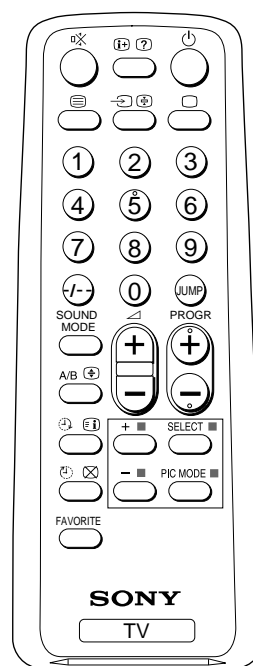
- 1) After adjustment, pull out the plug from AC outlet, and then plug into AC outlet again.
- 2) Turn the power switch ON and set to Service Mode.
- 3) Call the adjusted items again to confirm adjustments were made.

The screen display is :

Device Name	Item Name	Item No	Data	Marking of virgin NVM	Mode	
GEO	HPS	00	1C	■	SERVICE	50 ← PAL, SECAM : 50
627S	59	1.0C	7F	0	000A	NTSC : 60
Suffix No (OEM Code)	Software version				Total Power-On time (hours)	



- [7], [0] All the data becomes the values in memory.
- [8], [0] All user control goes to the standard state.
- [5], [0] Service data initialization (Be sure not to use usually.)
- [2], [0] Write 50Hz adjustment data to 60Hz, or vice versa.



RM-952

4-2. ADJUSTMENT METHOD

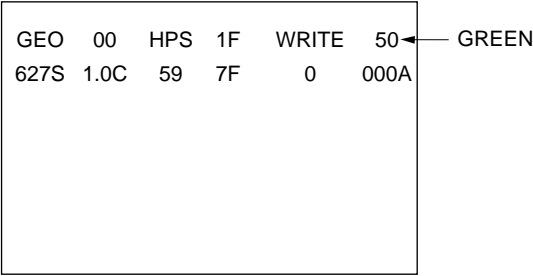
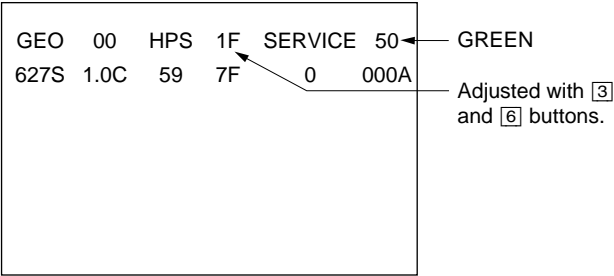
Item Number 00 of device GEO

This explanation uses H-Position as an example.

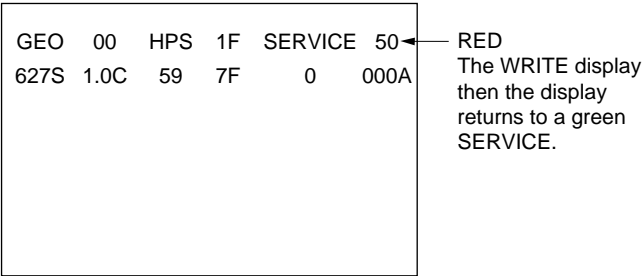
- 1. Select “GEO 00 HPS” with the [1] and [4] buttons.
- 2. Raise/lower the data with the [3] and [6] buttons.
- 3. Select the optimum state. (The standard is 1F for PAL reception.)
- 4. Write with the [MUTING] button. (The display changes to WRITE.)
- 5. Execute the writing with the [0] button. (The WRITE display will be changed to red color while excuting, and back to SERVICE.)

Use the same method for all Items. Use [1] and [4] to select the adjustment item, use [3] and [6] to adjust, write with [MUTING], then execute the write with [0].

- Note :**
- 1. In [WRITE], the data for all items are written into memory together.
 - 2. For adjustment items that have different standard data between 50Hz or 60Hz, be sure to use the respective input signal after adjustment.



Written with [MUTING]



Write executed with [0]

Adjustment Item Table

Device Name	Functionality		Note	Data Range	Function	Note for Different Data	Register No. (bit)	Slava Address	RAM Address (bit)
	No	Name							
GEO	0	HPS	7	3F	H Position	50/60HZ	12 (7-2)	CXA2130S(88H)	99 (7-2)
	1	HSZ	1F	3F	H Size	50/60HZ	11 (7-2)		98 (7-2)
	2	PAP	1F	3F	Pin Amp	50/60HZ	13 (7-2)		9A (7-2)
	3	TLT	7	0F	Trapezium	50/60HZ	15 (7-4)		9C (7-4)
	4	VPS	1F	3F	V Position	50/60HZ	0F (7-2)		96 (7-2)
	5	VSZ	1F	3F	V Size	50/60HZ	0E (7-2)		95 (7-2)
	6	SCO	7	0F	S Correction	50/60HZ	10 (7-4)		97 (7-4)
	7	VLN	7	0F	V Linearity	50/60HZ	10 (3-0)		97 (3-0)
	8	BOW	7	0F	AFC Bow	50/60HZ	16 (7-4)		9D (7-4)
	9	AGL	7	0F	AFC-Angle	50/60HZ	16 (3-0)		9D (3-0)
	0A	UPN	1F	3F	Upper Pin	50/60HZ	14 (7-2)		9B (7-2)
	0B	LPN	2F	3F	Lower Pin	50/60HZ	18 (7-2)		9F (7-2)
	0C	HBL	1	1	H Blanking on/off		18 (1)		6F (1)
	0D	LBL	0F	0F	Left H Blanking	50/60HZ	17 (7-4)		9E (7-4)
	0E	RBL	2	0F	Right H Blanking	50/60HZ	17 (3-0)		9E (3-0)
WHB	0	RDR	1F	3F	R Drive	DYNAMIC/others	09 (7-2)	CXA2130S(88H)	A6 (7-2)
	1	GDR	1F	3F	G Drive	DYNAMIC/others	0A (7-2)		A7 (7-2)
	2	BDR	1F	3F	B Drive	DYNAMIC/others	0B (7-2)		A8 (7-2)
	3	RCT	7	0F	R Cutoff	SECAM/others	07 (3-0)		AA (3-0)
	4	GCT	7	0F	G Cutoff	SECAM/others	08 (7-4)		AB (7-4)
	5	BCT	7	0F	B Cutoff	SECAM/others	08 (3-0)		AB (3-0)
	6	BMN	15	1F	Brightness Minimum Data		06 (7-2)		106
	7	SBR	1F	3F	Sub Brightness Control		06 (7-2)		107
SAJ	0	PMX	33	3F	Picture Maximum Data		03 (7-2)	CXA2130S(88H)	105
	1	SHU	8	0F	Sub Hue Control	TV/Video	05 (7-2)		108
	2	SSH	8	0F	Sub Sharpness Control	TV/Video	07 (7-4)		109
	3	SCL	1F	3F	Sub Color Control	NTSC/others	04 (7-2)		10A
VP	0	EHT	5	0F	EHT Comp	50/60HZ	15 (3-0)	CXA2130S(88H)	9C (3-0)
	1	GMA	2	03	Gamma Correction (seperated in STD mode)	NTSC/others	268 (1-0)		268 (1-0)
	2	YDL	6	0F	Y Delay	PAL/SECAM/NTSC	0C (3-0)		26B (3-0)
	3	SST	1	03	SECAM ID Start Position		1B (1-0)		72 (1-0)
	4	SSP	1	03	SECAM ID Stop Position		1B (3-2)		72 (3-2)
	5	SLV	2	03	SECAM ID Level		1C (1-0)		73 (1-0)
	6	SBF	22	3F	SECAM BELL fO		1C (7-2)		73 (7-2)
	7	DYC	1	1	Dynamic Color on/off		0A (1)		61 (1)
	8	ABL	1	1	ABL Mode Switching (except STANDARD mode)		09 (1)		60 (1)
	9	VTH	1	1	ABL Detection Vth Switching		09 (0)		60 (0)
	0A	SFO	1	1	FO Switching for Sharpness	NTSC/others	05 (1)		259 (1)
	0B	DCX	1	1	DC Trans. Ratio Switching		06 (1)		5D (1)
	0C	SHT	1	1	Pre-/Overshoot ratio Switch	NTSC/others	06 (0)		25A (0)

Adjustment Item Table

Device Name	Functionality		Note	Data Range	Function	Note for Different Data	Register No. (bit)	Slava Address	RAM Address (bit)
	No	Name							
VP	0D	HDW	0	1	H Drive Pulse Width Switch	TV/Video/Text	00 (6)		57 (6)
	0E	AFC	1	03	AFC Gain Control		0F (1-0)		A4 (1-0)
	0F	HOS	7	0F	H Oscillation		0C (7-4)		63 (7-4)
	10	HSS	0	1	Slice Level of H Sync Sep.		0D (1)		64 (1)
	11	VSS	0	1	Slice Level of V Sync Sep.	50/60Hz	0D (0)		64 (0)
	12	HMS	1	1	Macro Vision C/m off/on		0E (0)		95 (0)
	13	YUV	0	1	YUV Switch Control		01 (0)		58 (0)
	14	CDV	1	3	CD mode for Video		0D (5-4)		266 (5-4)
	15	RON	1	1	R ON	Video only	01 (3)		58 (3)
	16	GON	1	1	G ON	not memorized	01 (2)		58 (2)
	17	BON	1	1	B ON	not memorized	01 (1)		58 (1)
	18	PON	1	1	P ON	not memorized	00 (7)		57 (7)
	19	BLK	0	1	BLK Off		12 (0)		69 (0)
	1A	VMC	0	1	VM Off		13 (0)		6A (0)
AP	0	BCS	1	3	Bass Center Shift		#4 (3-0)	TDA7315(80H)	25B (1-0)
	1	TCS	1	3	Treble Center Shift		#5 (3-0)		25C (1-0)
	2	TRF	2	3	RF Treble Offset		#5 (3-0)		265 (1-0)
MSP	0	WST	15	FF	W/G Stereo Threshold			MSP3415D(84H)	165
	1	WBT	EA	FF	W/G Bilingual Threshold				166
	2	WLL	5	FF	W/G Monaural Threshold				167
	3	WAC	1	0F	W/G Agreement Count				168
	4	WDL	30	FF	W/G Search Delay				169
	5	NDL	20	FF	NICAM Search Delay				16A
	6	SDL	10	FF	Stereo status Read Delay				16B
	7	AGC	1	1	AGC Switch Auto/Constant		00BB (7)		116 (7)
	8	REL	28	3F	AGC Gain at Constant Mode		00BB (6-1)		116 (6-1)
	9	CRM	0	1	Carrier muting on/off		00BB (9)		115 (9)
	0A	ACO	1	1	Audio Clock out on/off		0083 (5)		11A (5)
	0B	FP	1B	7F	FM Prescale for non-M system		000E (14-8)		221
	0C	FPM	32	7F	FM Prescale for M system		000E (14-8)		222
	0D	FH	36	7F	FM Prescale for HDEV		000E (14-8)		223
	0E	FHM	65	7F	FM Prescale for HDEV and M		000E (14-8)		224
	0F	WGP	2A	7F	W/G Prescale		000E (14-8)		225
	10	NIP	6D	7F	NICAM Prescale		0010 (14-8)		14F
	11	ERR	50	FF	Auto FM switch Threshold		0021 (10-3)		174
	12	VOL	6D	FF	Loud Speaker gain 7000h to 7ff0h		0000 (15-4)		261

Adjustment Item Table

Device Name	Functionality		Note	Data Range	Function	Note for Different Data	Register No. (bit)	Slava Address	RAM Address (bit)
	No	Name							
SVP	0	SBF	22	3F	SECAM BELL f0	TV/Video NTSC/others	1C (7-2)	CXA2060AS(8AH)	88 (7-2)
	1	HOS	7	0F	H Oscillation		0C (7-4)		83 (7-4)
	2	SHU	8	0F	Sub Hue Control		05 (7-2)		21E
	3	SCL	1F	3F	Sub Color Control		04 (7-2)		21F
PIP	0	SDL	1	0F	Delay of output SELECT		01 (6-3)	SDA9288X(D6H)	190 (6-3)
	1	PPH	15	FF	H Position of TOP-LEFT Pin P		01/02		1AF
	2	PPV	2E	FF	V Position of TOP-LEFT Pin P		03 (7-0)		1B0
	3	YDL	0	07	Delay of Luminance Input		04 (2-0)		193 (2-0)
	4	HDI	0	0F	H Sync Delay for Inset		06 (3-0)		195 (3-0)
	5	ISC	0	1	Inset Clock Selection		06 (4)		195 (4)
	6	CLP	1	1	Clamp Pulse Selection		06 (5)		195 (5)
	7	CLC	0	1	Clamp Cycle Selection		06 (6)		195 (6)
	8	CON	1	0F	Contrast Adjustment for inset		09 (7-4)		198 (7-4)
	9	PLL	2	03	H Position For A-ch		0D (6-5)		19C (6-5)
	0A	PDV	0	0F	PIP V Pedestal Level		0E (7-4)		19D (7-4)
	0B	PDU	0	0F	PIP U Pedestal Level		0E (3-0)		19D (3-0)
TXT	0	TXH	1	3	Teletext Horizontal Position		10 (1-0)	SAA5261(58H)	257 (1-0)
	1	TXV	0	3	Teletext Vertical Position		10 (6-4)		257 (5-4)
OPM	0	OSH	0A	3F	OSD H Position	Option-Misc	1F1	CXP86461(60H)	17B (7-2)
	1	COM	1	03	Comb Selection				24D (7-6)
	2	APC	1	1	APC Switch				24C (5)
	3	TSY	0	03	TV Sys at Auto TV Sys				24C (4-3)
	4	MUT	0	1	No Signal Mute				24C (0)
	5	AFM	1	1	Auto FM switch				24C (1)
	6	RFB	0	3	C-BPF Control				24D (5-4)
	7	TVO	0	7	Tilt to V-Angle offset				24D (2-0)
OPB	8	DBL	0	1	Disable Blueback Function	Option-Bits		CXP86461(60H)	24C (2)
	0	OP1	51	FF	Optional Bits 1 (see below)				4B
	1	OP2	1	FF	Optional Bits 2 (see below)				4C
	2	OP3	28	FF	Optional Bits 3 (see below)				4D

NOTE

- ■ shaded items are fixed data.
- Standard data listed on the Adjustment Item Table are reference values, therefore it may be different for each model and for each mode.
- Note for Different Data Those are the standard data values written on the microprocessor. Therefore, the data values of the modes and stored respectively in the memory.
In case of a device replacement, adjustment by rewriting the data value is necessary for some items.

KV-XG29M61

RM-952

ITEM INFORMATION.**No. OPB0 OP1**

Item	XTAL 4.43	XTAL 3.58	SECAM	2nd. Lang	B/G	I	D/K	M
KV-XG29M61 (Malaysia)	1	1	1	1	1	1	1	1
KV-XG29M61 (Singapore)	1	1	1	1	1	1	1	1

No. OPB1 OP2

Item	TOP	NICAM	HDEV	Thai Bil	Dis Fav.	DVD Input	AV Input	
KV-XG29M61 (Malaysia)	0	1	1	0	0	0	1	1
KV-XG29M61 (Singapore)	0	1	1	0	0	0	1	1

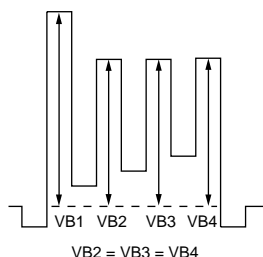
No. OPB2 OP3

Item	PIC Rotate	2199 Curve	Auto PIC	Auto TV sys	US ST	AV Mono	11 KEY	Color SW
KV-XG29M61 (Malaysia)	1	0	1	1	0	0	0	0
KV-XG29M61 (Singapore)	1	0	1	1	0	0	0	0

4-3. PICTURE QUALITY ADJUSTMENTS

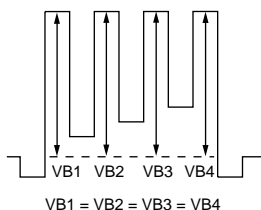
SUB COLOR ADJUSTMENT

1. Input a PAL color-bar.
2. Set to the following condition:
PICTURE 100%, BRIGHTNESS 50%, COLOR 50%
3. Connect an oscilloscope to pin ① (B OUT) of CN305, A board.
4. Set to Service Mode and select SAJ 3 'SCL' with [1] and [4] of the commander then adjust to VB2=VB3=VB4 with [3] and [6].
5. Press [MUTING] → [0] of the commander to write the data.
6. Adjust SAJ 3 'SCL' as step 2 to 5 when receiving NTSC color-bar.



SUB HUE ADJUSTMENT

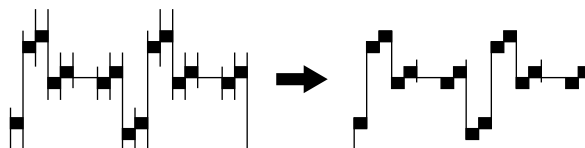
1. Select Video 1.
2. Input a NTSC color-bar, video into Video 1.
3. Set the following condition:
PICTURE 100%, BRIGHTNESS 50%, COLOR 50%
4. Connect an oscilloscope to pin ① (B OUT) of CN305, A board.
5. Select SAJ 1 'SHU' with [1] and [4] of the commander by setting to Service Mode and adjust to VB1=VB2=VB3=VB4 with [3] and [6].



6. Press [MUTING] → [0] of the commander to write the data.

BELL FILTER ADJUSTMENT

1. Input SECAM color-bar signal.
2. Connect the dual-trace oscilloscope to CN303 pin ⑨ (not mounted).
3. Adjust SERVICE MODE, ITEMS 'SBF' as shown below.



4-4. A BOARD ADJUSTMENT AFTER IC003 (MEMORY) REPLACEMENT

When replacing IC003 (MEMORY), be sure to change IC001 (μ-COM) to the following new IC at the same time.

IC001(μ-COM):

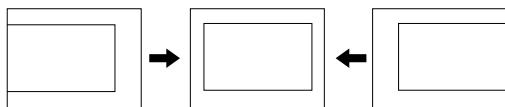
CXP86461-627S

1. Enter to Service Mode.
2. Press commander buttons [5] and [0] (Data Initialize), and [2] and [0] (Data Copy) to initialize the data.
3. Call each item number and check if the respective screen shows the normal picture.
In cases where items are not well adjusted, rectify the items with fine adjustment.
Write the data per each item number ([MUTING] + [0]).
4. Select item numbers "OPB0" (OP1), "OPB1" (OP2) and "OPB2" (OP3) and respectively set the bit per model with command buttons [3] and [6].
5. Press commander buttons [8] and [0] (Test Normal) to return to the data that was set on the shipment from the factory.
(This will also cancel Service Mode.)

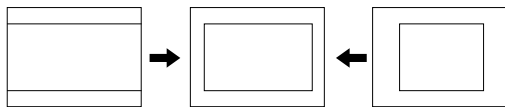
4-5. PICTURE DISTORTION ADJUSTMENT (1)

Item Number 00 – 0B

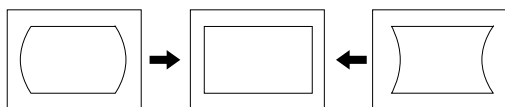
GEO 0 HPS (H POSITION)



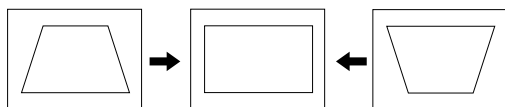
GEO 1 HSZ (H SIZE)



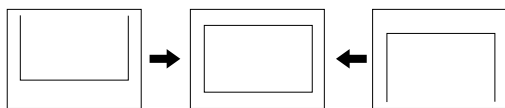
GEO 2 PAP (PIN AMP)



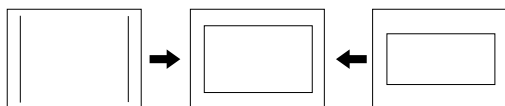
GEO 3 TLT (TRAPEZIUM)



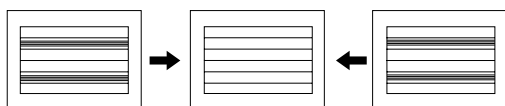
GEO 4 VPS (V POSITION)



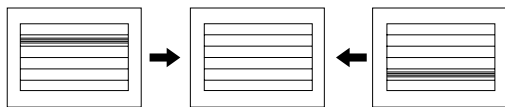
GEO 5 VSZ (V SIZE)



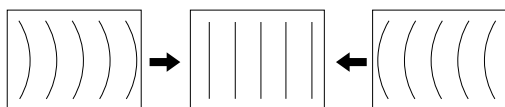
GEO 6 SCO (VERTICAL S-Correction)



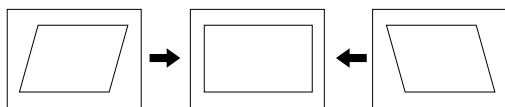
GEO 7 VLN (V LINEARITY)



GEO 8 BOW (AFC.BOW)

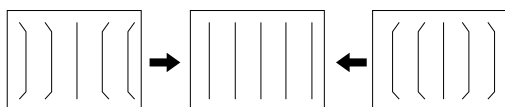


GEO 9 AGL (AFC.ANGLE)



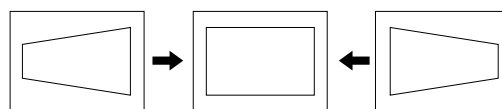
GEO 0A UCP (UPPER CORNER PIN)

GEO 0B LCP (LOWER CORNER PIN)



PICTURE DISTORTION ADJUSTMENT (2)

H-TRAPEZOID (Rotate RV1801)



MEMO

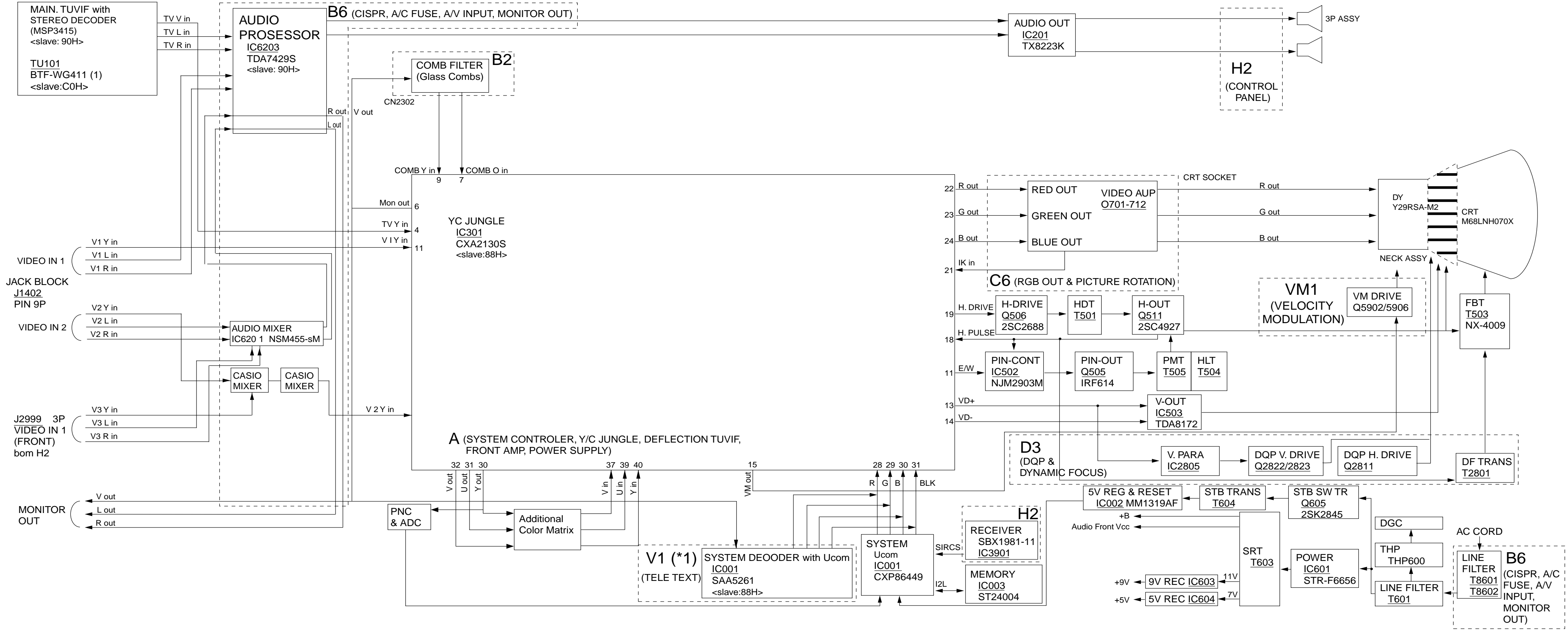
SECTION 5
DIAGRAM

KV-XG29M61
RM-952

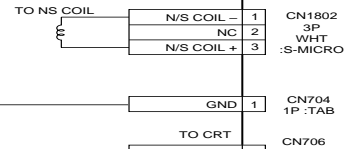
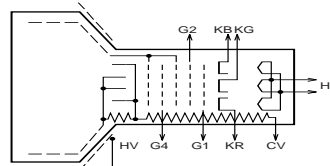
KV-XG29M61
RM-952

KV-XG29M61
RM-952

5-1. BLOCK DIAGRAM



5-2. FRAME SCHEMATIC DIAGRAM



C6
(RGB OUT &
PICTURE ROTATION)

D3
(DQP, DYNAMIC FOCUS)

V1
(TELE TEXT)

DY

B2

(COMB FILTER)

A
(SYSTEM CONTROLLER, Y/C JUNGLE, DEFLECTION,
TUVIF, FRONT AMP, POWER SUPPLY)

H2

(CONTROL PANEL)

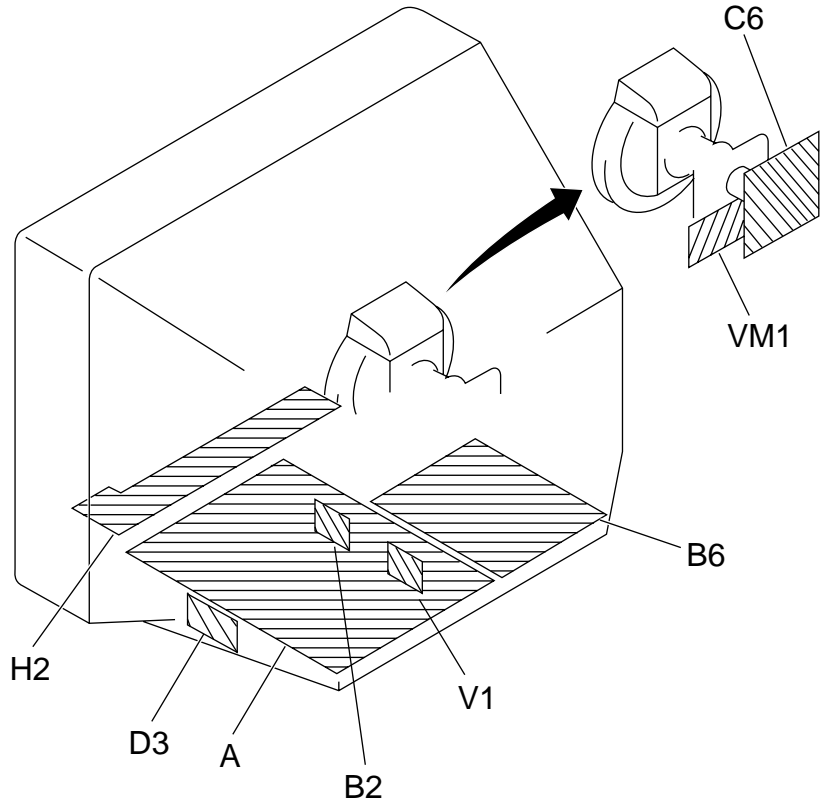
VM1
(VELOCITY
MODULATION)

NECK ASSY

B6

(CISPR, A/C FUSE,
AV INPUT, MONITOR OUT)

5-3. CIRCUIT BOARDS LOCATION



5-4. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

- Note:**
- All capacitors are in μF unless otherwise noted.
 - All electrolytic capacitors are rated at 50V unless otherwise noted.
 - All resistors are in ohms.
 $\text{k}\Omega = 1000\Omega$, $\text{M}\Omega = 1000\text{k}\Omega$
 - Indication of resistance which does not have rating electrical power is as follows.
Pitch: 5 mm
Rating electrical power 1/4W (CHIP: 1/10W)
 - : nonflammable resistor.
 - : internal component.
 - : panel designation or adjustment for repair.
 - All variable and adjustable resistors have characteristic curve B unless otherwise noted.
 - **Readings are taken with a color-bar signal input.**
no mark : PAL
() : SECAM
[] : NTSC 3.58
« » : NTSC 4.43
 - **Readings are taken with a 10 M Ω digital multimeter.**
 - **Voltage are dc with respect to ground unless otherwise noted.**
 - **Voltage variations may be noted due to normal production tolerances.**
 - **All voltages are in V.**
 - * : Cannot be measured.
 - **Circled numbers are waveform references.**
 - : B + bus.
 - : B - bus.
 - : signal path.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ✕	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The component identified by shading and mark are critical for safety. Replace only with part number specified.

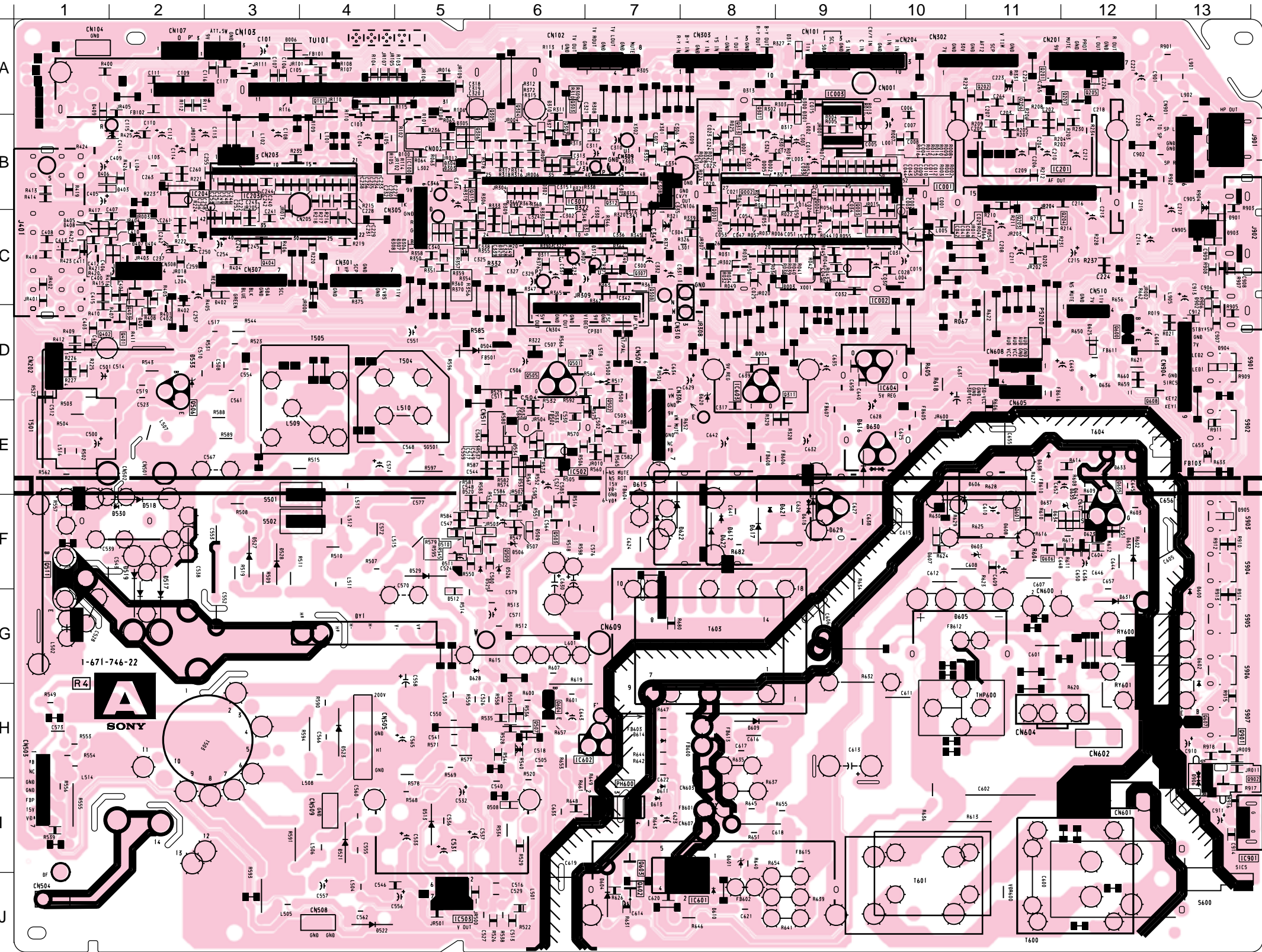
A BOARD

IC		D002	B-7	D617	E-7
IC001	B-9	D003	C-7	D618	E-8
IC002	C-8	D004	D-7	D620	D-7
IC003	A-8	D005	B-7	D621	E-7
IC100	B-4	D006	A-3	D622	E-6
IC201	B-10	D203	C-10	D623	E-10
IC203	B-3	D300	A-7	D624	E-10
IC204	B-2	D301	A-7	D625	C-10
IC301	B-6	D302	B-5	D627	E-7
IC502	E-6	D303	A-4	D628	F-5
IC503	H-4	D304	A-4	D629	E-8
IC601	H-7	D305	A-4	D630	D-8
IC602	G-6	D306	B-4	D631	F-10
IC603	D-7	D307	B-4	D632	E-10
IC604	D-8	D308	B-4	D633	D-10
IC901	H-12	D309	B-5	D634	E-10
PH600	G-6	D310	A-5	D635	E-10
TRANSISTOR		D311	C-5	D636	D-10
Q001	B-7	D312	C-6	D637	E-10
Q002	B-7	D313	A-7	D638	D-10
Q003	B-8	D314	A-7	D901	B-11
Q004	B-8	D315	B-6	D902	C-11
Q101	A-3	D316	B-6	D903	B-11
Q201	A-10	D317	A-7	D904	C-11
Q202	A-9	D401	C-2	D905	E-12
Q203	B-9	D402	C-2	D906	G-11
Q204	B-10	D403	B-1		
Q205	A-10	D404	C-1		
Q206	A-9	D405	C-2		
Q207	A-10	D406	B-1		
Q301	A-7	D407	C-1		
Q302	A-5	D408	B-1		
Q303	A-6	D409	A-1		
Q304	A-5	D504	C-5		
Q305	A-5	D505	G-5		
Q306	B-5	D506	E-5		
Q307	C-6	D507	E-5		
Q308	C-6	D508	G-5		
Q309	C-6	D509	E-5		
Q310	C-6	D510	E-4		
Q311	D-7	D511	E-4		
Q312	B-6	D512	F-4		
Q313	B-7	D513	H-4		
Q315	B-5	D517	E-2		
Q401	C-1	D518	E-2		
Q402	C-1	D519	E-2		
Q403	C-2	D520	H-4		
Q404	C-3	D521	H-3		
Q501	D-5	D522	I-4		
Q502	D-6	D525	E-5		
Q503	E-6	D526	E-5		
Q505	D-5	D527	E-3		
Q506	D-2	D528	E-3		
Q507	G-5	D529	E-4		
Q509	E-5	D530	E-1		
Q511	E-1	D531	E-5		
Q512	E-4	D532	D-5		
Q600	C-10	D600	F-11		
Q601	E-9	D601	H-7		
Q602	H-6	D602	F-11		
Q603	H-6	D603	E-9		
Q604	G-5	D604	H-6		
Q605	E-10	D605	F-9		
Q606	E-10	D606	E-9		
Q607	G-11	D607	E-9		
Q608	D-11	D608	E-9		
Q901	G-11	D609	G-7		
Q902	G-12	D610	H-7		
DIODE		D611	G-6		
D001	B-7	D612	E-7		
		D613	G-6		
		D614	G-6		
		D615	E-6		
		D616	D-8		

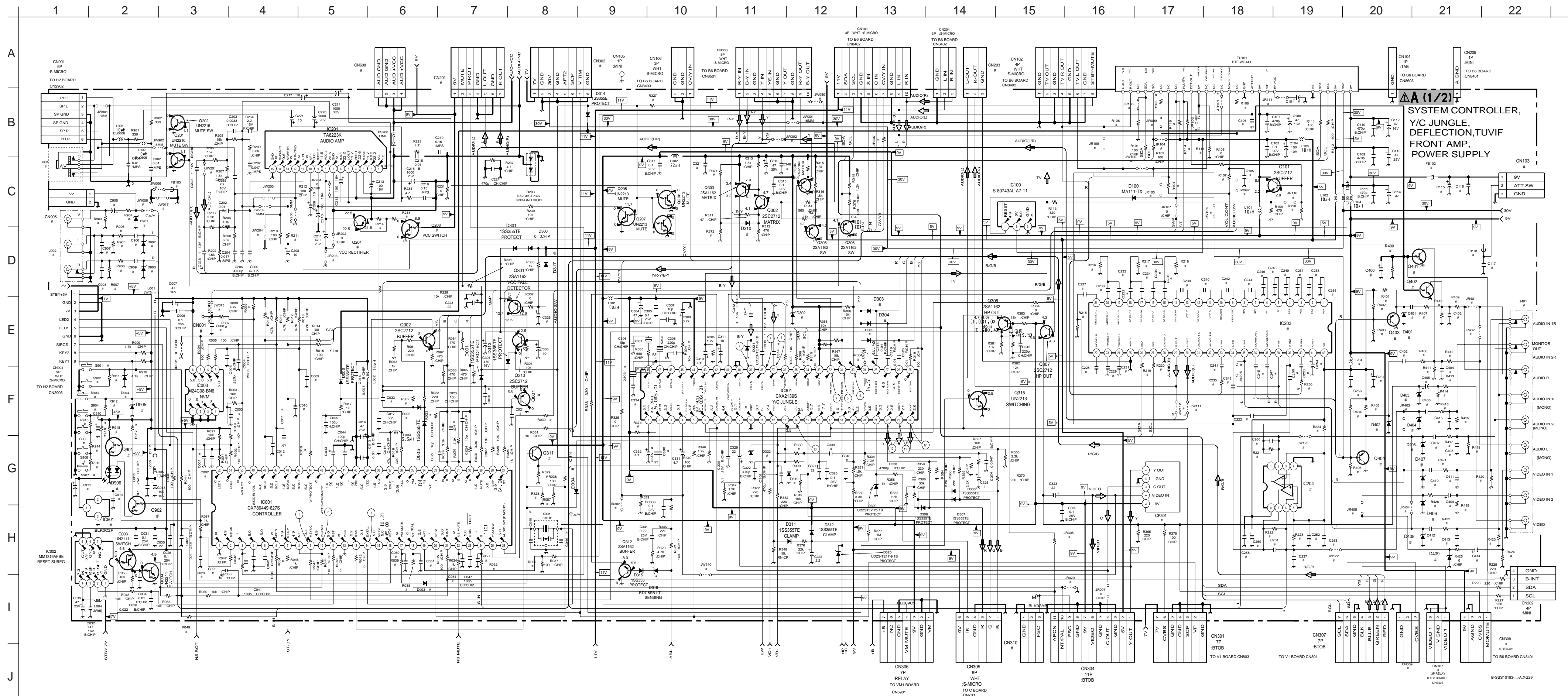
A [SYSTEM CONTROLLER, Y/C JUNGLE, DEFLECTION, TUVIF, FRONT AMP, POWER SUPPLY]

PRINTED WIRING BOARD

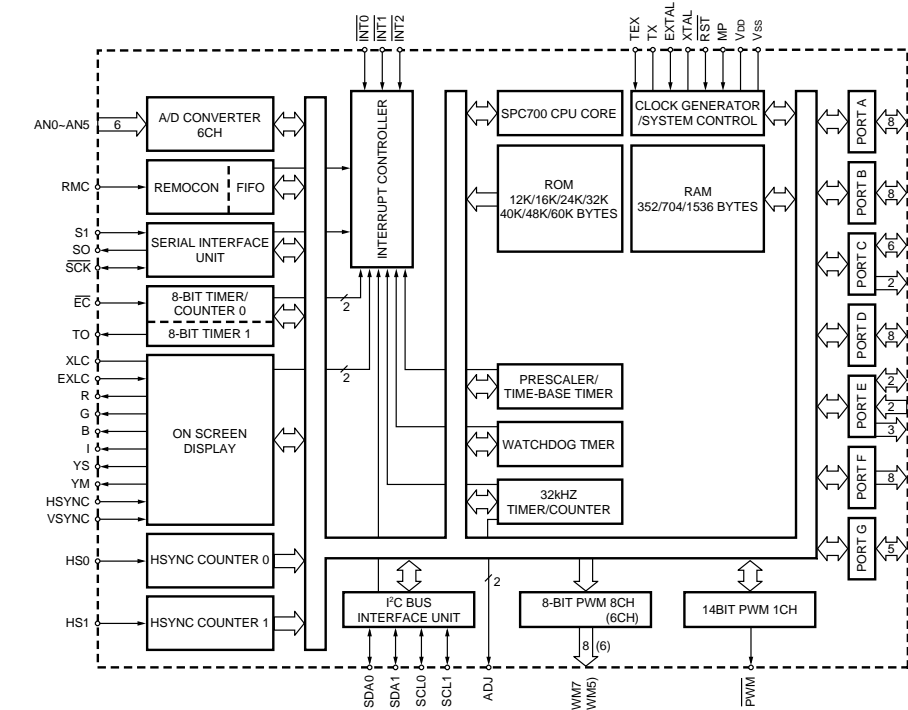
– A Board –



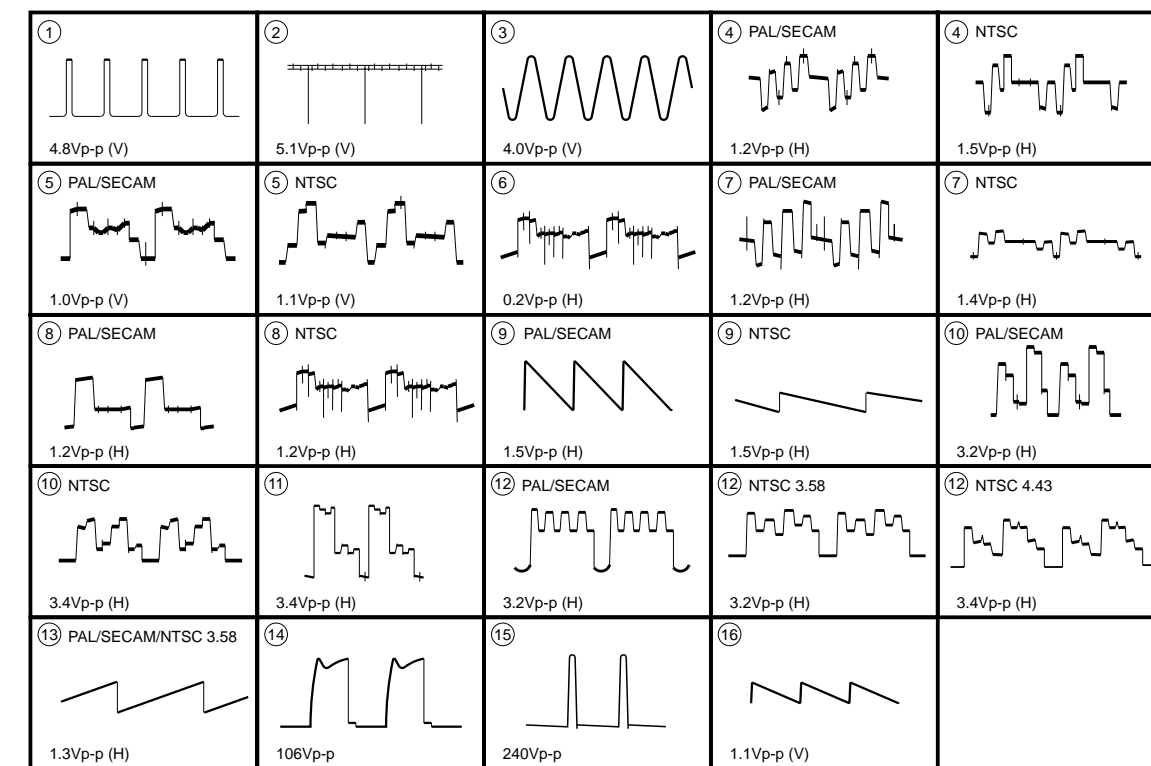
(1) Schematic Diagram of A(1/2) Board



A BOARD IC001 CXP86449-627S

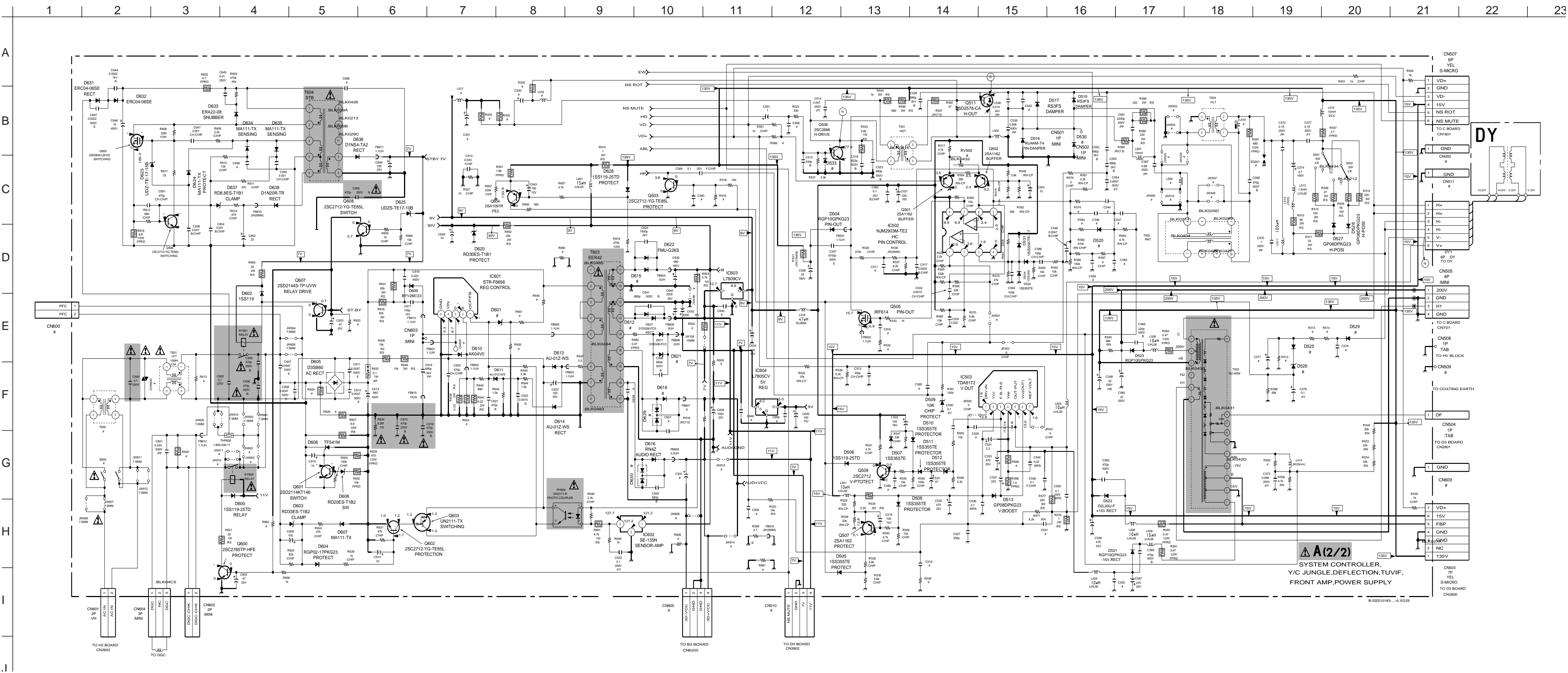


A BOARD WAVEFORMS

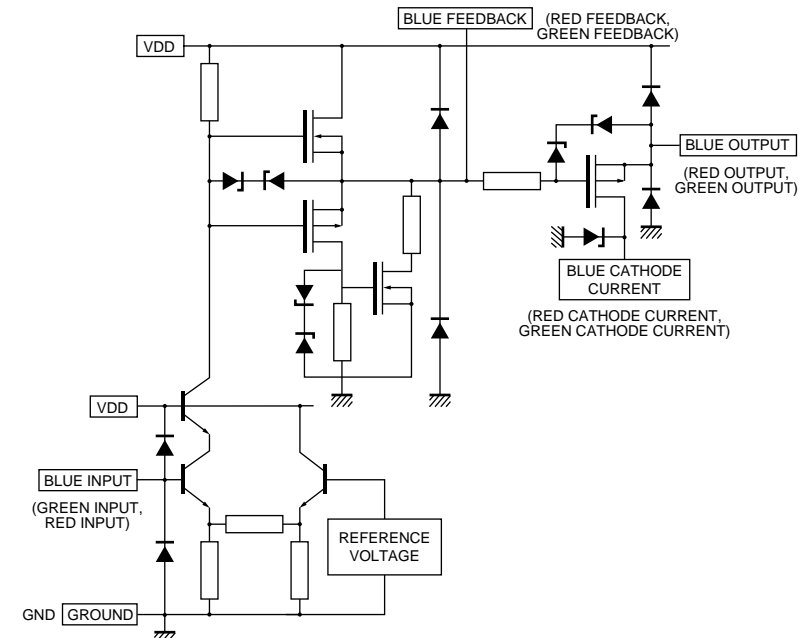


NOTE:
The circuit indicated at left contains high voltage of over 600 Vp-p. Please pay attention when inspecting or repairing it to prevent an electric shock.

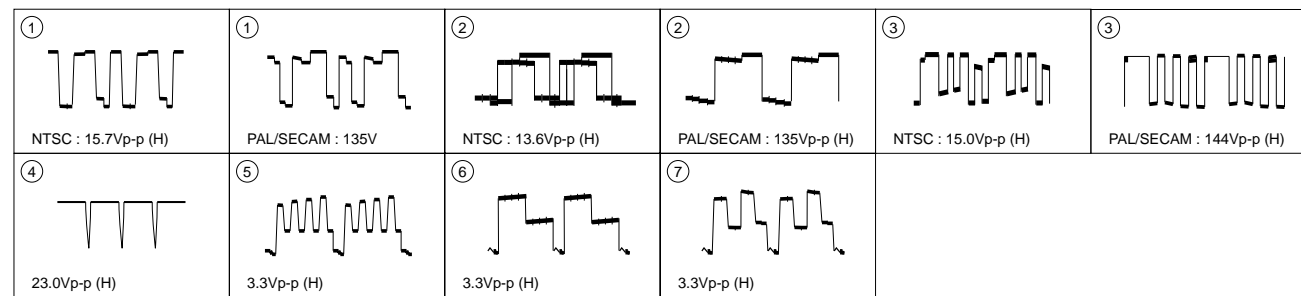
(2) Schematic Diagram of A(2/2) Board



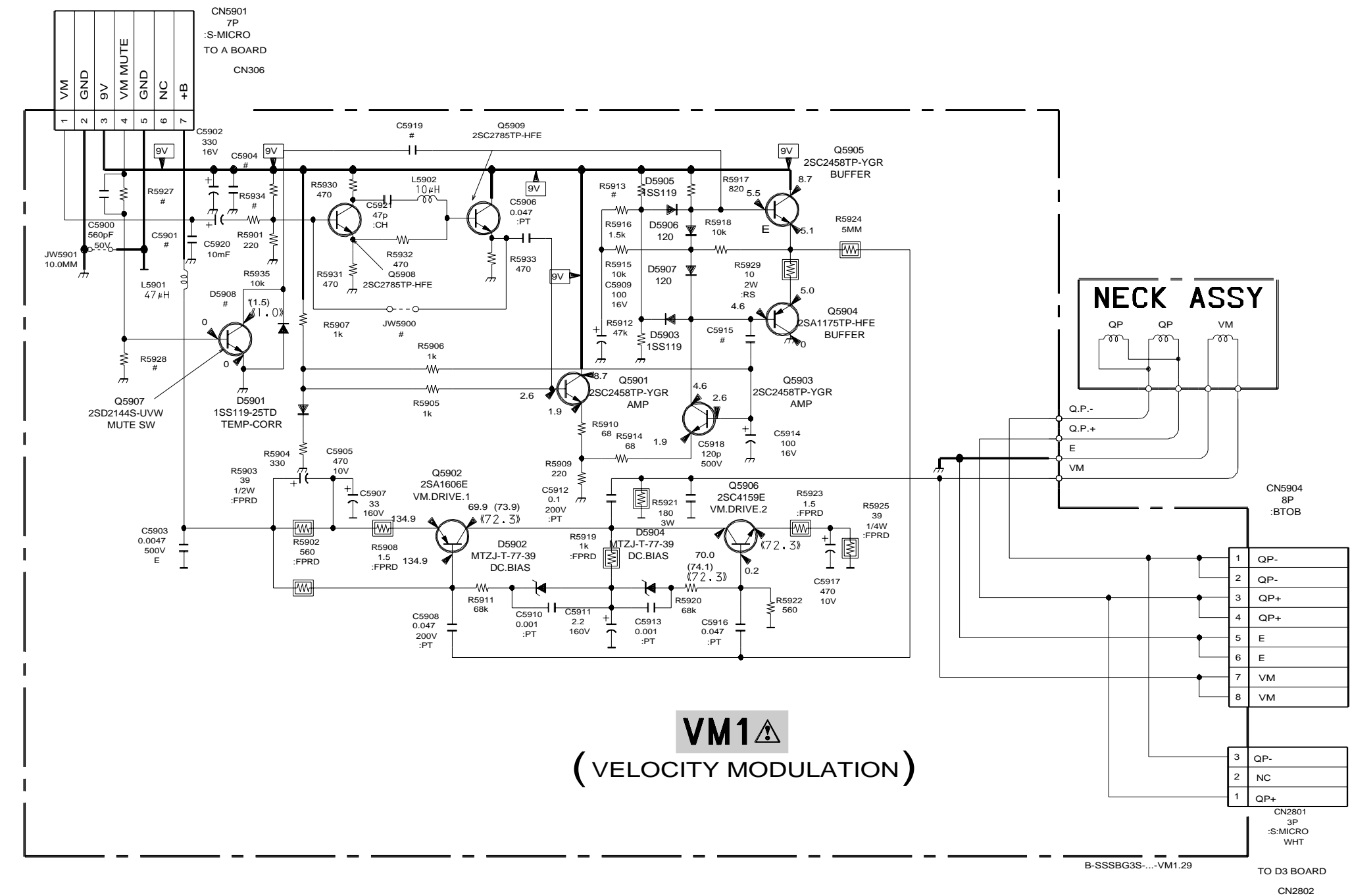
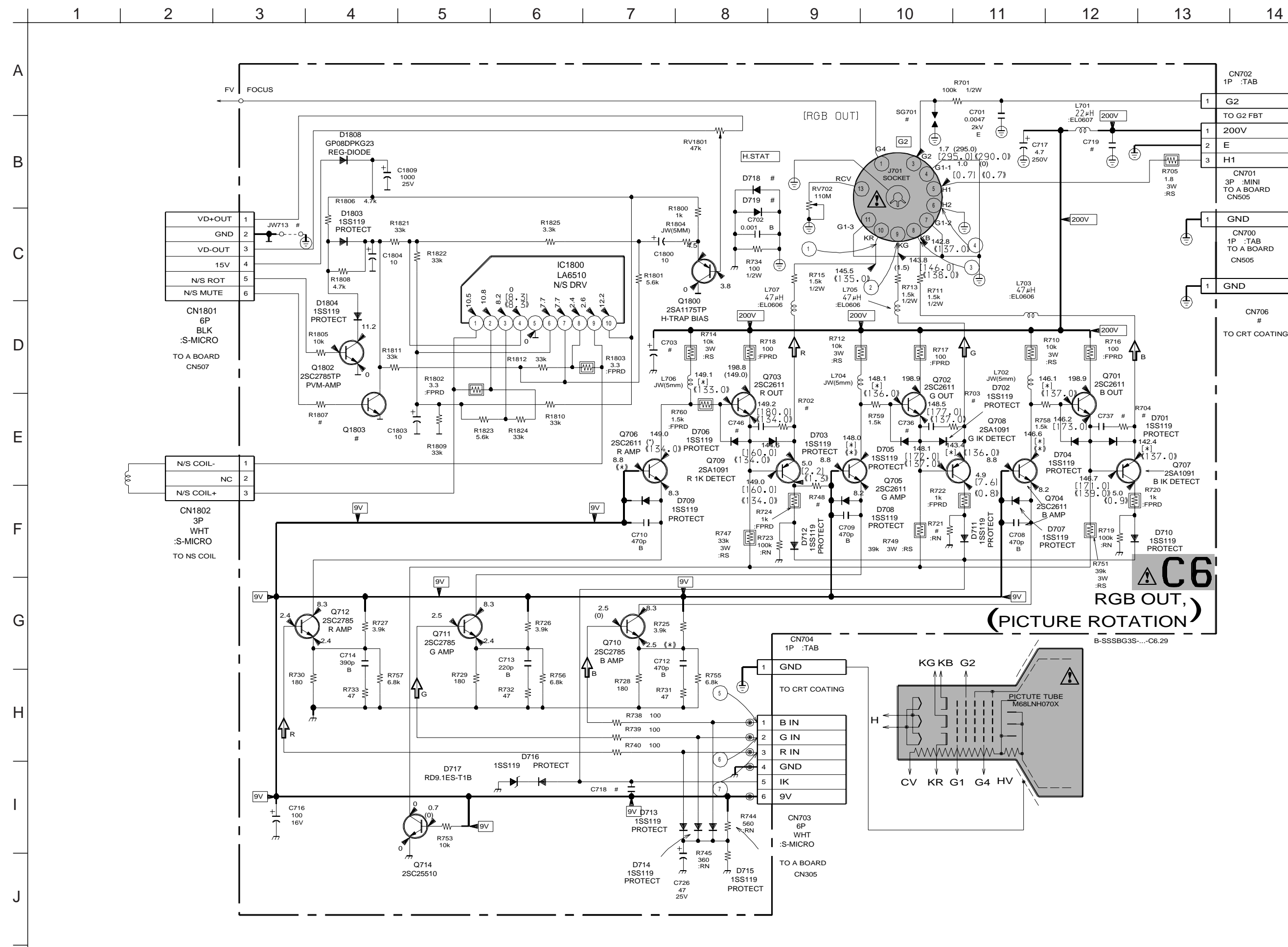
C6 BOARD IC701 STV5112



C6 BOARD WAVEFORMS



(3) Schematic Diagrams of C6 and VM1 Boards



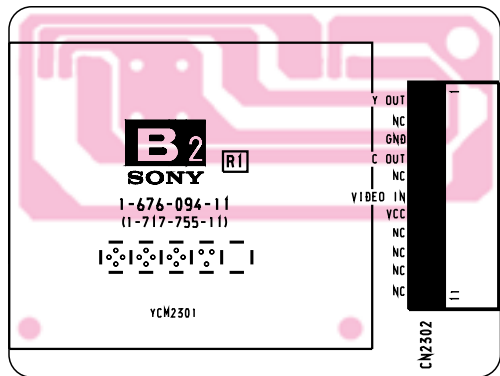
[illegible]

B2 [COMB FILTER]

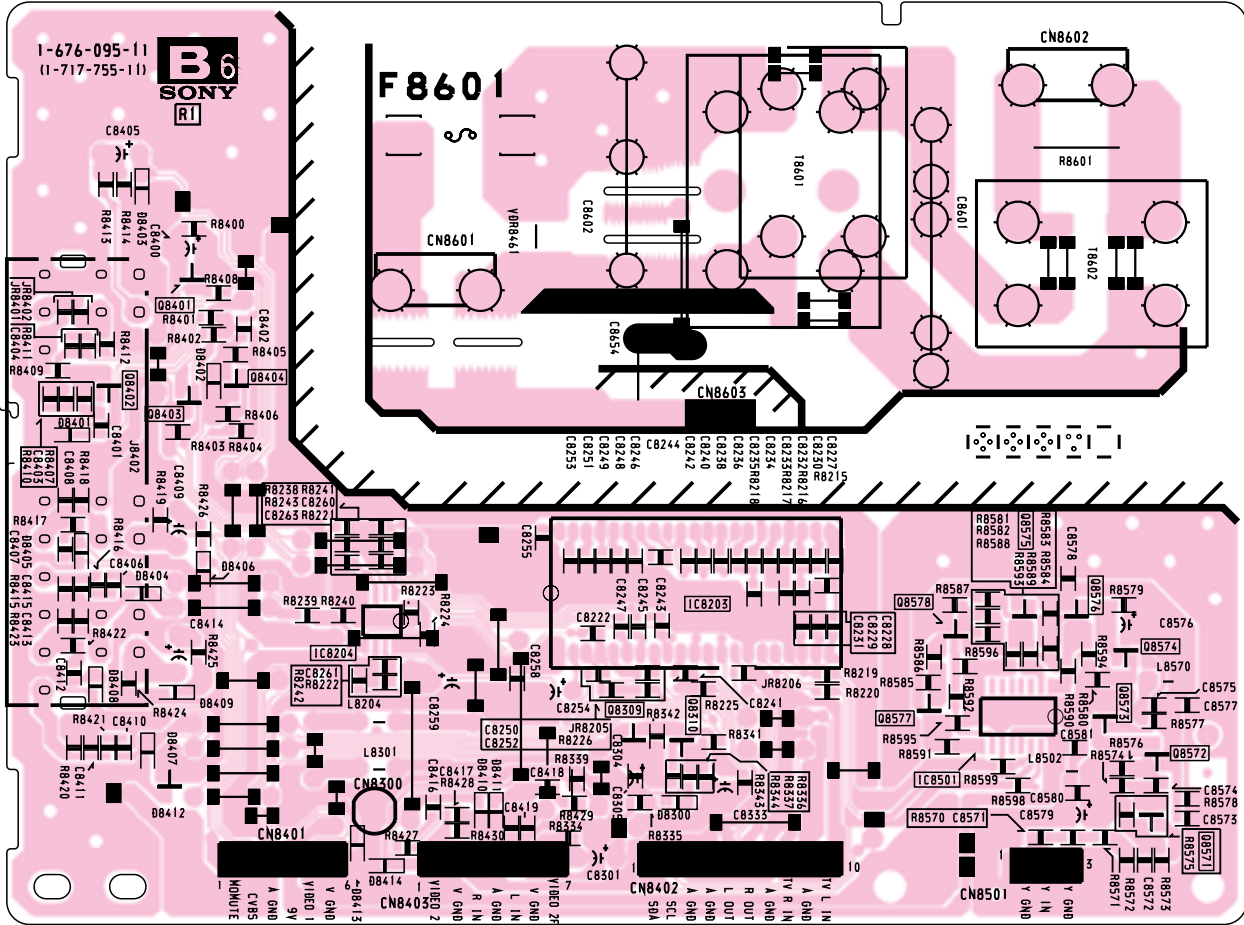
B6 [CISPR, A/C FUSE, AV INPUT,
MONITOR INPUT]

PRINTED WIRING BOARDS

– B2 Board –



– B6 Board –



V1

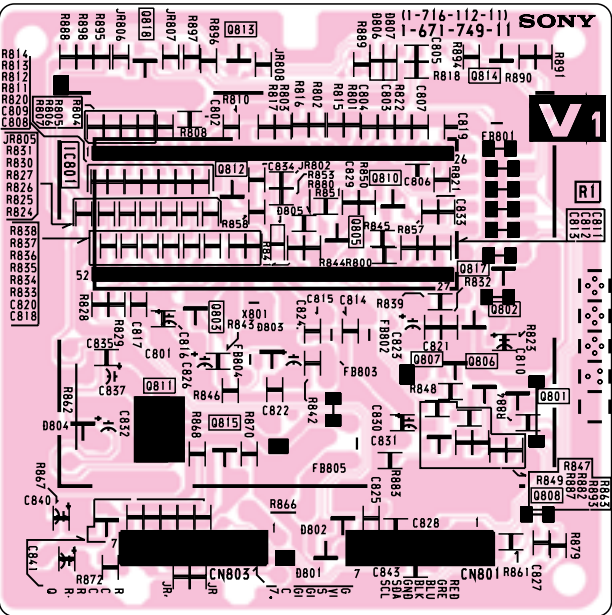
[TELE TEXT]

H2

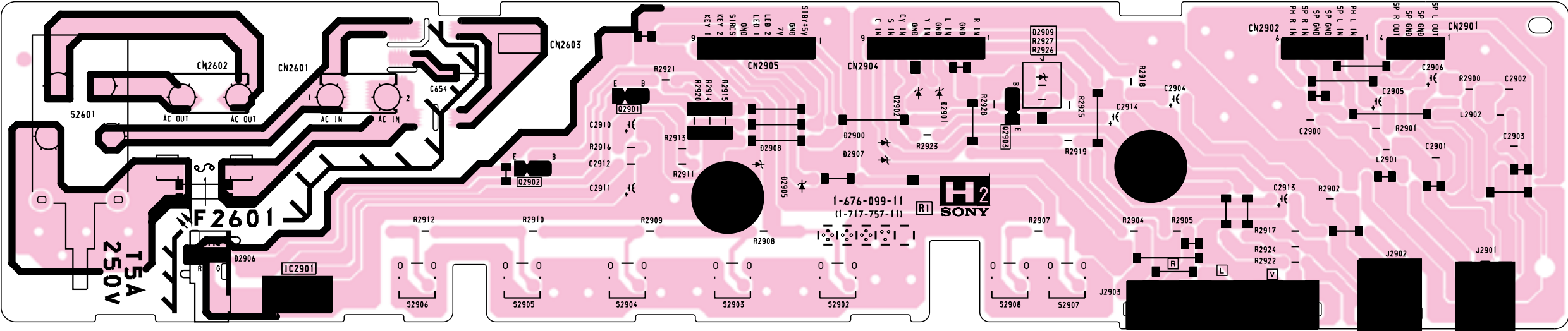
[CONTROL PANEL]

PRINTED WIRING BOARDS

– V1 Board –

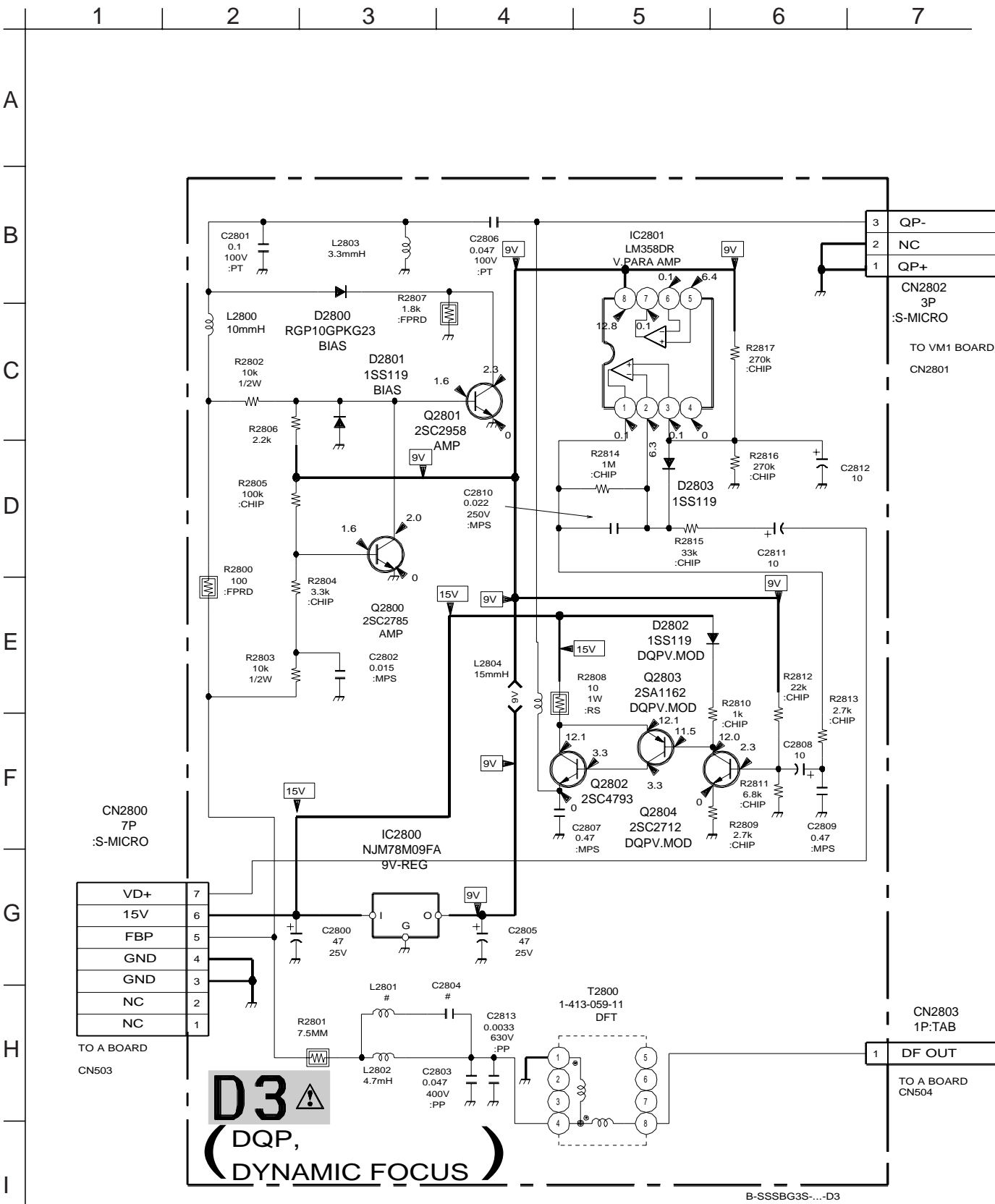


– H2 Board –



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

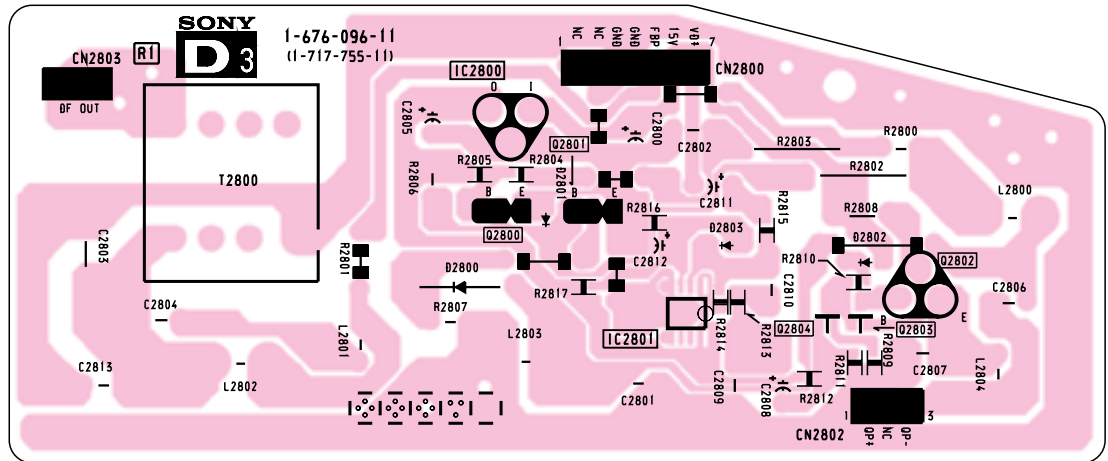
(6) Schematic Diagram of D3 Board



KV-XG29M61
RM-952

D3 [DQP, DYNAMIC FOCUS]

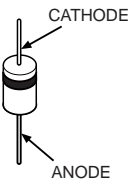
- D3 Board -



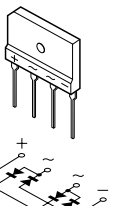
5-5. SEMICONDUCTORS

DIODE

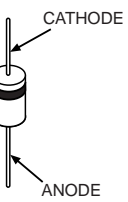
AK04V0
AU-01Z-V1
D2L20U
EL1Z
ERA22-08
GP08D
NNCD9.1A-T1
RD33EB3T
RGP02-17EL-6433



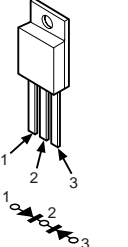
D4SB60L



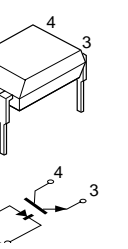
ERC04-06SE
RN4Z
RS3FS
31DQ06-FC5



FMU-G26S



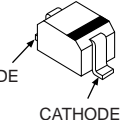
ON3171-R



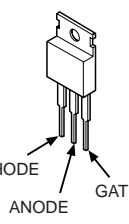
D1NS4
D1N20R
RD20ES-B2
RD30ESB2
RD39ES-B2
RD6.8ES-B1
RD9.1ES-L2
1SS119-25



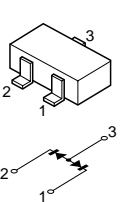
DTZ10R
DTZ-TT11-15B
MA111-(K8)-S0
RD10S-B
RD7.5SB1-T1
RD9.1S-B
UDZS-TE17-5.1B
UDZS-TE17-9.1B
1SS355TE-17



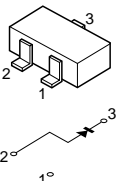
5P6M



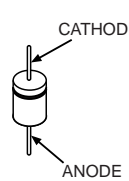
DAP202K



RD3.3M-B2
RD5.6M-B2

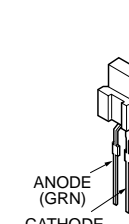


RU4AM-T4



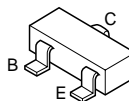
LED

SPB-26MVWF

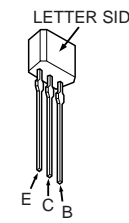


TRANSISTOR

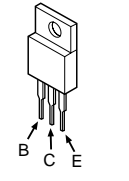
DTC114EK
UN2111
UN2211
UN2213
UN2216
2SA1162-G
2SC1623-L5L6
2SC2712-YG
2SD2114K



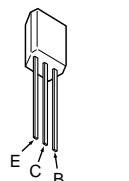
DTC144ESA
2SA1175-HFE
2SC2785-HFE



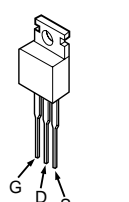
2SA1606-E
2SC4159-E
2SC4793
2SD2394-EF



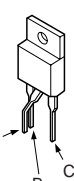
2SC2458-YGR
2SD2144S-UVW



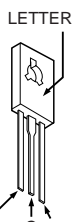
IRF614



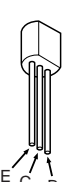
2SK2845-LB102



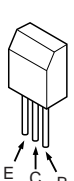
2SC2611
2SC2688-LK



2SC2551-0

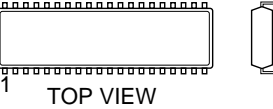


2SC2958



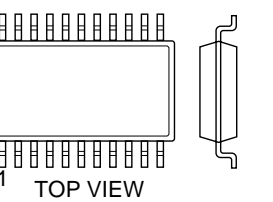
IC

CXA1315M (16PIN)
CXA2139S (48PIN)
CXP86449-627S (64PIN)
SAA5261 (48PIN)
M24C08-BN6 (8PIN)
TDA7429S (15PIN)

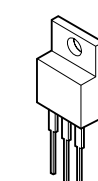


Dual In-line Package
Pin 6~98

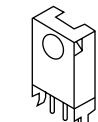
LM358D (8PIN)
MM1319AFBE (7PIN)
NJM2903M (8PIN)
μPC4558G2 (8PIN)



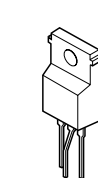
NJM78M09FA
TA7805S



SBX1981-51P

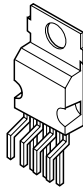


SE-135N

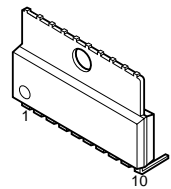


SECTION 6
EXPLODED VIEWS

TDA8172

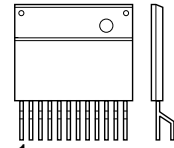


LA6510



STR-F6656

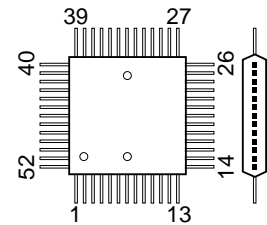
MARKING SIDE VIEW



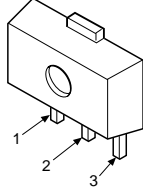
Zig-zag In -line Package
Pin 6~99

RU-1P

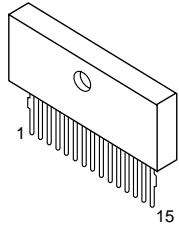
MARKING SIDE VIEW



S-80743AL-A7-S



TA8223K



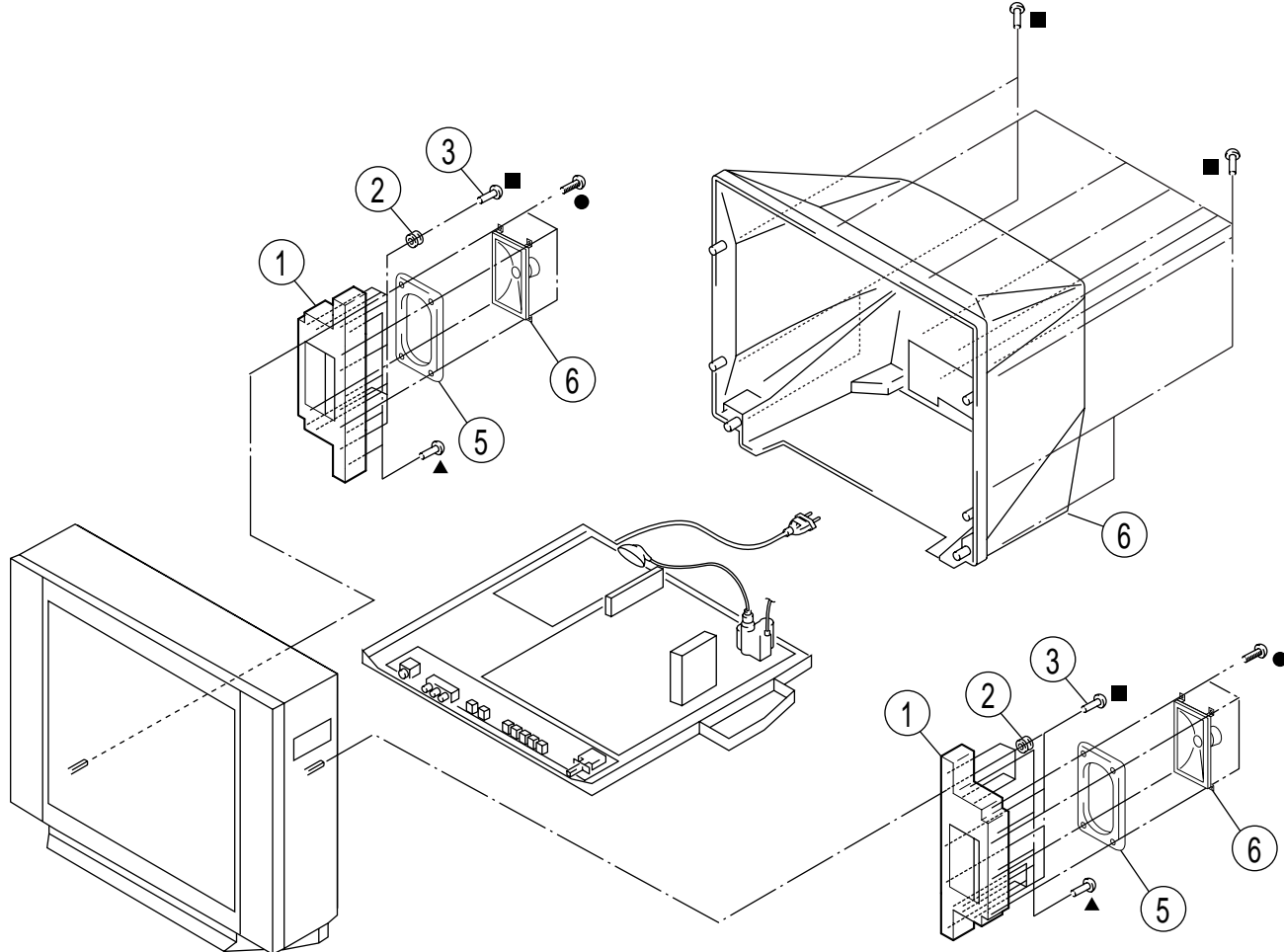
NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

6-1. SPEAKER BRACKET

- : 7-685-663-71 SCREW +BVTP 4 × 16
- : 7-685-648-71 SCREW +BVTP 3 × 12
- ▲: 7-685-650-71 SCREW +BVTP 3 × 16

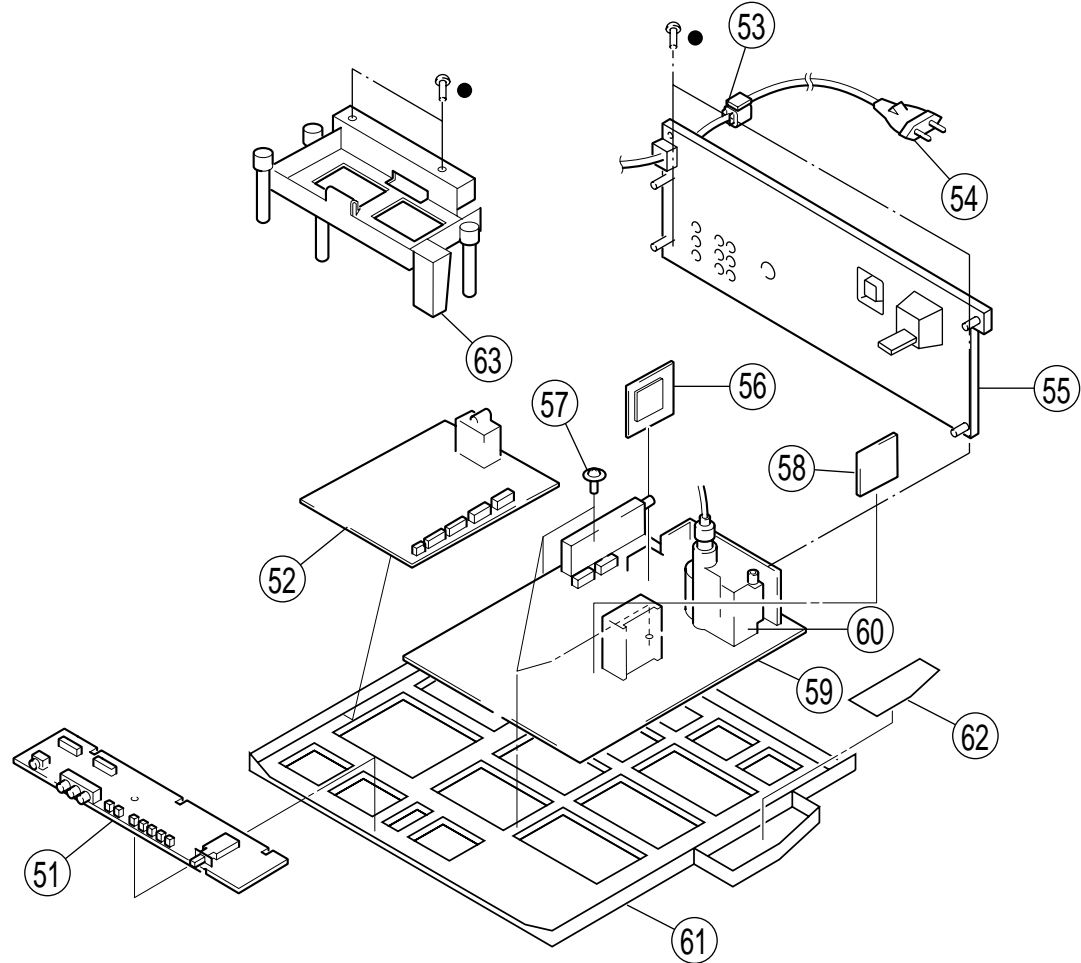
The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.



REF. NO.	PART NO.	DESCRIPTION	REMARK
1	* 4-071-045-01	BRACKET, SPEAKER	
2	4-374-745-21	CUSHION (A)	
3	4-054-981-01	SCREW, STEP TAPPING	
4	1-505-503-11	SPEAKER (15X6.5CM)	
5	* 4-038-987-11	CUSHION, SPEAKER	
6	4-065-506-02	COVER, REAR	

6-2. CHASSIS

- : 7-685-648-71 SCREW BVTP 3 × 12



REF. NO.	PART NO.	DESCRIPTION	REMARK
51	* A-1372-742-A	H2 BOARD MOUNTED	
52	* A-1136-065-A	B6 BOARD COMPLETE	
53	4-022-115-00	HOLDER, AC CORD	
54	▲ 1-574-062-11	CORD, POWER (WITH CONNECTOR) 2.5A/250V	
55	4-066-684-11	BRACKET, TERMINAL	
56	* A-1347-155-A	V1 BOARD COMPLETE	
57	4-046-797-01	SCREW (3X12), (+)BVTAP	
58	* A-1131-525-A	B2 BOARD MOUNTED	
59	* A-1299-089-A	A BOARD COMPLETE (KV-XG29M61 (Malaysia))	
	* A-1299-084-A	A BOARD COMPLETE (KV-XG29M61 (Singapore))	
60	1-453-284-11	TRANSFORMER ASSY, FLYBACK (NX-4009//M314)	
61	* 4-066-681-12	BRACKET, MAIN	
62	* A-1343-763-A	D3 BOARD MOUNTED	
63	* 4-070-963-01	HOLDER, PWB	
64	8-598-541-20	TUNER, FSS BTF-WG441	

SECTION 7
ELECTRICAL PARTS LIST

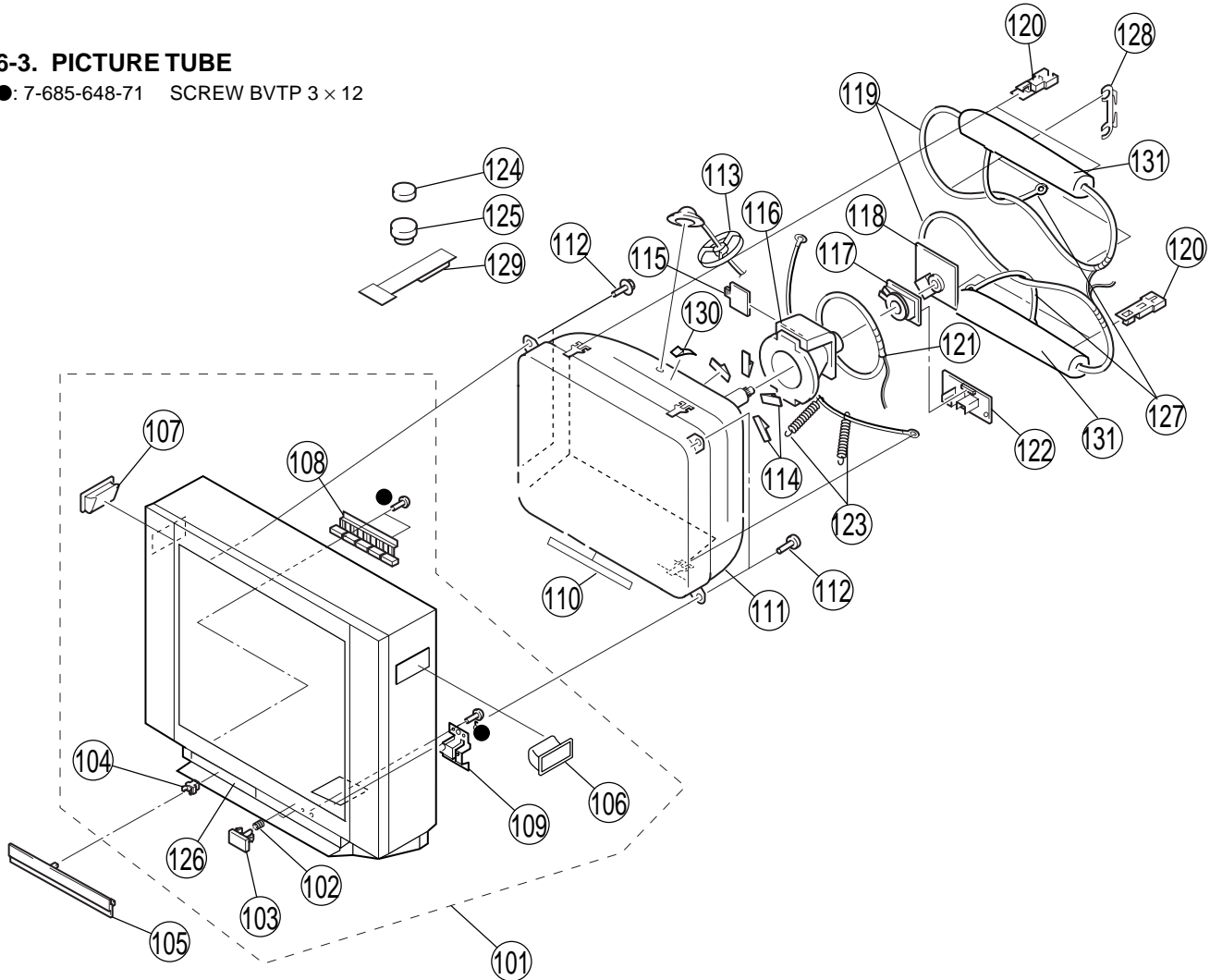
A

A

The components identified by shading and mark △ are critical for safety. Replace only with part number specified.

6-3. PICTURE TUBE

●: 7-685-648-71 SCREW BVTP 3 × 12



NOTE:

The components identified by shading and mark △ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All resistors are in ohms
- F : nonflammable
- CAPACITORS
- MF : μF, PF : μμF
- COILS
- MMH : mH, UH : μH

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
101	X-4037-072-1	BEZNET ASSY	102-104, 106-109, 126	116	△ 8-451-494-31	DEFLECTION YOKE (Y29RSA-S)	
102	4-036-405-11	SPRING, COMPRESSION		117	8-453-011-11	NA299-M	
103	4-065-508-01	BUTTON, POWER		118	* A-1332-011-A	C6 BOARD MOUNTED	
104	4-047-464-01	CATCHER, PUSH		119	△ 1-419-323-11	COIL, DEGAUSSING (FOR MALAYSIA)	
105	4-071-047-01	DOOR, CONTROL		△ 1-419-294-11	COIL, DEGAUSSING (FOR SINGAPORE)		
				120	* 4-062-970-11	CLIP (29RSN), DGC	
106	4-070-957-01	HANDLE (R)					
107	4-070-956-01	HANDLE (L)		121	1-452-896-11	COIL, NA ROTATION (RT200)	
108	4-065-509-01	BUTTON, CONTROL		122	* A-1342-519-A	VM1 BOARD MOUNTED	
109	* 4-065-510-01	GUIDE, LIGHT		123	4-369-318-61	SPRING, TENSION	
110	4-072-569-11	SHEET, BLOTTING		124	1-452-032-00	MAGNET,DISC	
				125	1-452-094-00	CIRCULAR DISC MAGNET B	
111	△ 8-735-056-01	PICTURE TUBE (M68LNH070X)					
112	4-046-765-12	SCREW, TAPPING 7+CROWN WASHER		126	4-032-761-01	SHAFT (S), DOOR	
113	* 3-704-372-11	HOLDER, HV CABLE		127	4-068-028-31	BAND, DGC	
114	4-072-365-01	SPACER,DY		128	4-064-883-11	HOLDER, DGC	
115	2-163-920-01	PLATE, TLH CORRECTION		129	X-4387-214-3	PERMALOY ASSY, CORRECTION	
				130	4-046-600-11	SPACER,DY	
				131	* 4-063-935-11	CUSHION (50 x 550),DGC	

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
	* A-1299-089-A	A BOARD COMPLETE (MALAYSIA)		C207	1-136-164-00	MYLAR	0.082MF 5% 50V
	* A-1299-084-A	A BOARD COMPLETE (SINGAPORE)		C208	1-126-964-11	ELECT	10MF 20% 50V
		*****		C209	1-126-964-11	ELECT	10MF 20% 50V
				C210	1-126-933-11	ELECT	100MF 20% 16V
	4-382-854-11	SCREW (M3X10), P, SW (+)		C211	1-126-941-11	ELECT	470MF 20% 25V
	4-382-854-21	SCREW (M3X14), P, SW (+)					
		<CAPACITOR>		C212	1-126-933-11	ELECT	100MF 20% 16V
				C213	1-126-933-11	ELECT	100MF 20% 16V
				C214	1-126-942-61	ELECT	1000MF 20% 25V
				C215	1-126-942-61	ELECT	1000MF 20% 25V
				C216	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C004	1-163-001-11	CERAMIC CHIP	220PF 10% 50V	C217	1-126-964-11	ELECT	10MF 20% 50V
C005	1-163-001-11	CERAMIC CHIP	220PF 10% 50V	C218	1-136-167-00	MYLAR	0.15MF 5% 50V
C006	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C219	1-136-167-00	MYLAR	0.15MF 5% 50V
C007	1-104-664-11	ELECT	47MF 20% 16V	C220	1-126-942-61	ELECT	1000MF 20% 25V
C013	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V	C221	1-126-964-11	ELECT	10MF 20% 50V
C014	1-104-664-11	ELECT	47MF 20% 25V	C223	1-126-965-11	ELECT	22MF 20% 50V
C015	1-163-009-11	CERAMIC CHIP	0.001MF 10% 50V	C224	1-163-133-00	CERAMIC CHIP	470PF 5% 50V
C016	1-163-243-11	CERAMIC CHIP	47PF 5% 50V	C225	1-109-982-11	CERAMIC CHIP	1MF 10% 10V
C017	1-163-113-00	CERAMIC CHIP	68PF 5% 50V	C226	1-109-982-11	CERAMIC CHIP	1MF 10% 10V
C019	1-104-664-11	ELECT	47MF 20% 25V	C264	1-164-505-11	CERAMIC CHIP	2.2MF 16V
C022	1-163-227-11	CERAMIC CHIP	10PF 0.5PF 50V	C265	1-164-505-11	CERAMIC CHIP	2.2MF 16V
C023	1-163-227-11	CERAMIC CHIP	10PF 0.5PF 50V	C301	1-126-935-11	ELECT	470MF 20% 16V
C024	1-163-227-11	CERAMIC CHIP	10PF 0.5PF 50V	C302	1-163-005-11	CERAMIC CHIP	470PF 10% 50V
C026	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C303	1-126-964-11	ELECT	10MF 20% 50V
C027	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C304	1-126-967-11	ELECT	47MF 20% 50V
C028	1-163-037-11	CERAMIC CHIP	0.022MF 10% 50V	C305	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C030	1-126-965-11	ELECT	22MF 20% 50V	C306	1-163-233-11	CERAMIC CHIP	18PF 5% 50V
C031	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C307	1-163-233-11	CERAMIC CHIP	18PF 5% 50V
C032	1-107-823-11	CERAMIC CHIP	0.47MF 10% 16V	C308	1-163-259-91	CERAMIC CHIP	220PF 5% 50V
C034	1-163-031-11	CERAMIC CHIP	0.01MF 50V	C309	1-126-957-11	ELECT	0.22MF 20% 50V
C041	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	C310	1-126-963-11	ELECT	4.7MF 20% 50V
C042	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	C311	1-126-964-11	ELECT	10MF 20% 50V
C044	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	C312	1-164-346-11	CERAMIC CHIP	1MF 16V
C047	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	C313	1-164-346-11	CERAMIC CHIP	1MF 16V
C055	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	C315	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C103	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C316	1-104-664-11	ELECT	47MF 20% 25V
C104	1-104-665-11	ELECT	100MF 20% 10V	C317	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C107	1-163-005-11	CERAMIC CHIP	470PF 10% 50V	C318	1-163-031-11	CERAMIC CHIP	0.01MF 50V
C108	1-104-664-11	ELECT	47MF 20% 16V	C319	1-163-031-11	CERAMIC CHIP	0.01MF 50V
C109	1-163-005-11	CERAMIC CHIP	470PF 10% 50V	C320	1-163-031-11	CERAMIC CHIP	0.01MF 50V
C110	1-163-005-11	CERAMIC CHIP	470PF 10% 50V	C322	1-163-005-11	CERAMIC CHIP	470PF 10% 50V
C111	1-163-005-11	CERAMIC CHIP	470PF 10% 50V	C323	1-126-965-11	ELECT	22MF 20% 50V
C112	1-104-664-11	ELECT	47MF 20% 16V	C324	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V
C113	1-104-664-11	ELECT	47MF 20% 25V	C325	1-126-960-11	ELECT	1MF 20% 50V
C114	1-126-967-11	ELECT	47MF 20% 50V	C327	1-126-965-11	ELECT	22MF 20% 50V
C202	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V	C328	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C203	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V	C329	1-126-965-11	ELECT	22MF 20% 50V
C204	1-136-164-00	MYLAR	0.082MF 5% 50V				
C205	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V				
C206	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V				

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C330	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C510	1-102-112-00	CERAMIC	330PF 10% 50V
C331	1-126-963-11	ELECT	4.7MF 20% 50V	C513	1-163-263-11	CERAMIC CHIP	330PF 5% 50V
C332	1-126-963-11	ELECT	4.7MF 20% 50V	C514	1-106-383-00	MYLAR	0.047MF 10% 200V
				C517	1-164-182-11	CERAMIC CHIP	0.0033MF 10% 50V
C335	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C518	1-104-665-11	ELECT	100MF 20% 10V
C336	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V				
C337	1-126-961-11	ELECT	2.2MF 20% 50V	C519	1-102-212-00	CERAMIC	820PF 10% 500V
C338	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V	C521	1-126-934-11	ELECT	220MF 20% 16V
C341	1-115-340-11	CERAMIC CHIP	0.22MF 10% 25V	C522	1-126-933-11	ELECT	100MF 20% 16V
				C523	1-102-002-00	CERAMIC	680PF 10% 500V
C342	1-163-259-91	CERAMIC CHIP	220PF 5% 50V	C524	1-126-967-11	ELECT	47MF 20% 50V
C502	1-163-145-00	CERAMIC CHIP	0.0015MF 5% 50V				
C503	1-126-964-11	ELECT	10MF 20% 50V	C526	1-130-495-00	MYLAR	0.1MF 5% 50V
C506	1-107-638-11	ELECT	33MF 20% 160V	C527	1-102-820-00	CERAMIC	330PF 5% 50V
C507	1-161-830-00	CERAMIC	0.0047MF 500V	C528	1-162-116-00	CERAMIC	680PF 10% 2KV
				C530	1-137-372-11	MYLAR	0.022MF 5% 50V
				C531	1-107-903-11	ELECT	2.2MF 20% 50V
C532	1-126-941-11	ELECT	470MF 20% 25V	C539	1-129-723-00	FILM	0.056MF 5% 630V
C533	1-126-941-11	ELECT	470MF 20% 25V	C540	1-136-171-00	MYLAR	0.33MF 5% 50V
C536	1-136-165-00	MYLAR	0.1MF 5% 50V	C546	1-165-319-11	CERAMIC CHIP	0.1MF 50V
C537	1-126-969-11	ELECT	220MF 20% 50V	C549	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V
C538	1-136-617-11	FILM	0.019MF 3% 2KV	C550	1-106-220-00	MYLAR	0.1MF 10% 100V
C551	1-126-960-11	ELECT	1MF 20% 50V				
C552	1-162-116-00	CERAMIC	680PF 10% 2KV				
C553	1-162-116-00	CERAMIC	680PF 10% 2KV				
C554	1-137-417-11	MYLAR	0.0047MF 10% 200V				
C556	1-126-941-11	ELECT	470MF 20% 25V				
C557	1-126-941-11	ELECT	470MF 20% 25V				
C558	1-123-024-21	ELECT	33MF 160V				
C560	1-102-228-00	CERAMIC	470PF 10% 500V				
C561	1-129-898-00	FILM	0.0022MF 5% 630V				
C562	1-102-228-00	CERAMIC	470PF 10% 500V				
C564	1-163-038-91	CERAMIC CHIP	0.1MF 25V				
C565	1-107-655-11	ELECT	47MF 20% 250V				
C566	1-102-244-00	CERAMIC	220PF 10% 500V				
C567	1-115-520-11	FILM	0.68MF 5% 250V				
C568	1-102-228-00	CERAMIC	470PF 10% 500V				
C570	1-115-522-11	FILM	1MF 5% 250V				
C572	1-117-661-21	FILM	0.15MF 5% 250V				
C573	1-106-387-00	MYLAR	0.068MF 10% 200V				
C574	1-104-709-11	ELECT	4.7MF 0 160V				
C576	1-130-495-00	MYLAR	0.1MF 5% 50V				

REF. NO.	PART NO.	DESCRIPTION			REMARK
C577	1-106-395-00	MYLAR	0.15MF	10%	200V
C582	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C584	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C586	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C600	△ 1-104-705-11	MYLAR	0.1MF	20%	250V
C601	1-102-050-00	CERAMIC	0.01MF	99%	500V
C602	△ 1-104-705-11	MYLAR	0.1MF	20%	250V
C603	1-104-664-11	ELECT	47MF	20%	25V
C604	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C605	△ 1-119-886-51	CERAMIC	470PF	10%	250V
C606	△ 1-119-886-51	CERAMIC	470PF	10%	250V
C607	1-161-830-00	CERAMIC	0.0047MF	99%	500V
C608	1-161-830-00	CERAMIC	0.0047MF	99%	500V
C609	1-126-968-11	ELECT	100MF	20%	50V
C610	1-126-964-11	ELECT	10MF	20%	50V
C611	1-161-830-00	CERAMIC	0.0047MF	99%	500V
C612	1-161-830-00	CERAMIC	0.0047MF	99%	500V
C613	1-125-906-11	ELECT	560MF	20%	450V
C614	1-126-964-11	ELECT	10MF	20%	50V
C615	△ 1-119-886-51	CERAMIC	470PF	10%	250V
C616	1-130-202-00	FILM	0.022MF	5%	400V
C617	1-107-792-11	CERAMIC	100PF	5%	1KV
C618	1-125-893-11	FILM	680PF	3%	1.5KV
C619	△ 1-119-886-51	CERAMIC	470PF	10%	250V
C620	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C621	1-102-114-00	CERAMIC	470PF	10%	50V
C622	1-102-119-00	CERAMIC	0.0015MF	10%	50V
C623	1-104-665-11	ELECT	100MF	20%	25V
C624	1-125-772-91	CERAMIC	1500PF	10%	2KV
C626	1-102-002-00	CERAMIC	680PF	10%	500V
C627	1-102-002-00	CERAMIC	680PF	10%	500V
C628	1-126-942-61	ELECT	1000MF	20%	25V
C629	1-126-964-11	ELECT	10MF	20%	50V
C630	1-125-494-11	ELECT(BLOCK)	560MF	20%	160V
C632	1-128-339-11	ELECT	2200MF	20%	16V
C633	1-104-999-11	MYLAR	0.1MF	10%	200V
C634	1-126-933-11	ELECT	100MF	20%	16V
C635	1-104-665-11	ELECT	100MF	20%	10V
C636	1-104-760-11	CERAMIC CHIP	0.047MF	10%	50V
C641	1-102-002-00	CERAMIC	680PF	10%	500V
C642	1-126-943-11	ELECT	2200MF	20%	25V
C643	1-104-665-11	ELECT	100MF	20%	10V
C644	1-104-331-11	CERAMIC	0.0022MF	10%	1KV
C645	1-137-605-11	MYLAR	0.01MF	10%	250V
C646	1-107-679-91	ELECT	10MF	20%	450V
C647	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C649	1-126-940-11	ELECT	330MF	20%	25V
C650	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C651	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C652	1-126-965-11	ELECT	22MF	20%	50V
C653	1-104-664-11	ELECT	47MF	20%	25V
C655	△ 1-119-886-51	CERAMIC	470PF	10%	250V
C657	1-101-821-00	CERAMIC	0.0022MF		500V
C901	1-136-153-00	MYLAR	0.01MF	5%	50V
C902	1-136-153-00	MYLAR	0.01MF	5%	50V
C912	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C913	1-104-665-11	ELECT	100MF	20%	10V

A

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<CONNECTOR>				D510	8-719-988-61	DIODE 1SS355TE-17	
CN101	* 1-564-506-11	PLUG, CONNECTOR 3P		D511	8-719-988-61	DIODE 1SS355TE-17	
CN102	* 1-564-507-11	PLUG, CONNECTOR 4P		D512	8-719-988-61	DIODE 1SS355TE-17	
CN104	1-695-915-11	TAB (CONTACT)		D513	8-719-908-03	DIODE GP08D	
CN105	* 1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D517	8-719-312-71	DIODE RS3FS	
CN106	* 1-564-506-11	PLUG, CONNECTOR 3P		D518	8-719-074-35	DIODE RU4AM-T4	
CN202	* 1-508-847-00	PIN, CONNECTOR 4P		D519	8-719-312-71	DIODE RS3FS	
CN204	* 1-564-506-11	PLUG, CONNECTOR 3P		D521	8-719-302-43	DIODE EL1Z	
CN205	* 1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D522	8-719-028-45	DIODE D2L20U	
CN301	* 1-774-813-11	CONNECTOR, BOARD TO BOARD 7P		D523	8-719-302-43	DIODE EL1Z	
CN303	* 1-564-506-11	PLUG, CONNECTOR 3P		D527	8-719-908-03	DIODE GP08D	
CN304	* 1-766-955-11	CONNECTOR, BOARD TO BOARD 11P		D528	8-719-908-03	DIODE GP08D	
CN305	* 1-564-509-11	PLUG, CONNECTOR 6P		D531	8-719-988-61	DIODE 1SS355TE-17	
CN307	* 1-774-813-11	CONNECTOR, BOARD TO BOARD 7P		D532	8-719-988-61	DIODE 1SS355TE-17	
CN501	* 1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D534	8-719-988-61	DIODE 1SS355TE-17	
CN502	* 1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D600	8-719-911-19	DIODE 1SS119-25	
CN503	* 1-564-510-11	PLUG, CONNECTOR 7P		D602	8-719-911-19	DIODE 1SS119-25	
CN504	1-695-915-11	TAB (CONTACT)		D603	8-719-150-92	DIODE RD33EB3T	
CN505	* 1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P		D604	8-719-028-72	DIODE RGP02-17EL-6433	
CN507	* 1-564-509-11	PLUG, CONNECTOR 6P		D605	8-719-510-53	DIODE D4SB60L	
CN508	1-695-915-11	TAB (CONTACT)		D606	8-719-108-18	THYRISTOR 5P6M	
CN601	* 1-580-843-11	PIN, CONNECTOR (POWER)		D607	8-719-073-01	DIODE MA111-(K8).S0	
CN602	* 1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		D608	8-719-110-53	DIODE RD20ESB2	
CN603	* 1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D609	8-719-311-31	DIODE RU-1P	
CN604	* 1-691-134-11	PIN, CONNECTOR (PC BOARD) 2P		D610	8-719-043-76	DIODE AK04V0	
CN901	* 1-564-509-11	PLUG, CONNECTOR 6P		D611	8-719-046-74	DIODE AU-01Z-V1	
CN904	* 1-564-512-11	PLUG, CONNECTOR 9P		D613	8-719-046-74	DIODE AU-01Z-V1	
CN2302	* 1-766-952-11	CONNECTOR, BOARD TO BOARD 11P		D614	8-719-046-74	DIODE AU-01Z-V1	
<DIODE>				D617	8-719-073-84	DIODE 31DQ06-FC5	
D001	8-719-988-61	DIODE 1SS355TE-17		D618	8-719-067-18	DIODE RN4Z	
D005	8-719-988-61	DIODE 1SS355TE-17		D620	8-719-110-72	DIODE RD30ESB2	
D006	8-719-988-61	DIODE 1SS355TE-17		D622	8-719-071-39	DIODE FMU-G26S	
D100	8-719-073-01	DIODE MA111-(K8).S0		D623	8-719-978-65	DIODE DTZ-TT11-15B	
D203	8-719-914-42	DIODE DA204K		D624	8-719-073-01	DIODE MA111-(K8).S0	
D300	1-216-295-91	SHORT 0		D625	8-719-977-28	DIODE DTZ10B	
D301	8-719-988-61	DIODE 1SS355TE-17		D627	8-719-073-84	DIODE 31DQ06-FC5	
D306	8-719-988-61	DIODE 1SS355TE-17		D628	8-719-911-19	DIODE 1SS119-25	
D307	8-719-988-61	DIODE 1SS355TE-17		D631	8-719-068-00	DIODE ERC04-06SE	
D308	8-719-988-61	DIODE 1SS355TE-17		D632	8-719-068-00	DIODE ERC04-06SE	
D309	8-719-069-54	DIODE UDZS-TE17-5.1B		D633	8-719-948-45	DIODE ERA22-08	
D311	8-719-988-61	DIODE 1SS355TE-17		D634	8-719-073-01	DIODE MA111-(K8).S0	
D312	8-719-988-61	DIODE 1SS355TE-17		D635	8-719-073-01	DIODE MA111-(K8).S0	
D313	8-719-988-61	DIODE 1SS355TE-17		D636	8-719-510-02	DIODE D1NS4	
D314	8-719-988-61	DIODE 1SS355TE-17		D637	8-719-109-96	DIODE RD6.8ESB1	
D315	8-719-988-61	DIODE 1SS355TE-17		D638	8-719-510-48	DIODE D1N20R	
D316	8-719-037-06	DIODE RD7.5SB1-T1		<CONNECTOR>			
D320	8-719-069-60	DIODE UDZS-TE17-9.1B		DY1	* 1-580-798-11	CONNECTOR PIN (DY) 6P	
D321	8-719-069-60	DIODE UDZS-TE17-9.1B		<FERRITE BEAD>			
D504	8-719-302-43	DIODE EL1Z		FB501	1-410-397-21	FERRITE 1.1UH	
D505	8-719-988-61	DIODE 1SS355TE-17		FB502	1-410-397-21	FERRITE 1.1UH	
D506	8-719-911-19	DIODE 1SS119-25		FB600	1-410-397-21	FERRITE 1.1UH	
D507	8-719-988-61	DIODE 1SS355TE-17		FB601	1-410-397-21	FERRITE 1.1UH	
D508	8-719-988-61	DIODE 1SS355TE-17		FB602	1-410-397-21	FERRITE 1.1UH	
D509	1-216-073-00	RES,CHIP 10K	5% 1/10W				

A

The components identified by shading
and mark \triangle are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
FB603	1-410-397-21	FERRITE	1.1UH	L103	1-414-856-11	INDUCTOR	10UH
FB604	1-412-911-31	FERRITE	0UH	L104	1-414-856-11	INDUCTOR	10UH
FB606	1-412-911-31	FERRITE	0UH	L105	1-414-856-11	INDUCTOR	10UH
FB607	1-412-521-11	INDUCTOR	4.7UH	L301	1-414-189-31	INDUCTOR	100UH
FB608	1-412-911-31	FERRITE	0UH	L302	1-414-185-41	INDUCTOR	22UH
FB611	1-410-397-21	FERRITE	1.1UH	L501	1-412-525-31	INDUCTOR	10UH
FB612	1-410-397-21	FERRITE	1.1UH	L502	1-422-613-11	COIL, AIR CORE	
FB613	1-410-397-21	FERRITE	1.1UH	L503	1-412-525-31	INDUCTOR	10UH
FB615	1-412-911-31	FERRITE	0UH	L504	1-412-525-31	INDUCTOR	10UH
		<IC>		L505	1-412-525-31	INDUCTOR	10UH
IC001	8-752-910-12	IC CXP86449-627S		L506	1-412-525-31	INDUCTOR	10UH
IC002	8-759-371-21	IC MM1319AFBE		L507	1-459-111-00	INDUCTOR	10MMH
IC003	8-759-527-71	IC M24C08-BN6		L508	1-412-525-31	INDUCTOR	10UH
IC100	8-759-042-02	IC S-80743AL-A7-S		L511	1-406-977-21	INDUCTOR	100UH
IC201	8-759-336-30	IC TA8223K		L513	1-412-551-31	INDUCTOR	1.5MMH
IC301	8-752-090-41	IC CXA2139S		L515	1-459-104-00	COIL, WITH CORE	
IC502	8-759-700-07	IC NJM2903M		L518	1-414-187-11	INDUCTOR	47UH
IC503	8-759-980-58	IC TDA8172		L601	1-412-527-11	INDUCTOR	15UH
IC601	8-749-014-48	IC STR-F6656		L901	1-408-603-31	INDUCTOR	10UH
IC602	8-749-920-61	IC SE-135N		L902	1-408-603-31	INDUCTOR	10UH
IC603	8-759-701-59	IC NJM78M09FA		L905	1-414-856-11	INDUCTOR	10UH
IC604	8-759-231-53	IC TA7805S				<PHOTO COUPLER>	
		<CHIP CONDUCTOR>		PH600 \triangle 8-749-924-35	PHOTO COUPLER ON3171-R		
JR001	1-216-295-91	SHORT	0			<IC LINK>	
JR002	1-216-295-91	SHORT	0				
JR004	1-216-295-91	SHORT	0	PS200	1-532-675-21	LINK, IC 1.5A/150V	
JR005	1-216-295-91	SHORT	0			<TRANSISTOR>	
JR006	1-216-295-91	SHORT	0				
JR007	1-216-295-91	SHORT	0	Q002	8-729-230-49	TRANSISTOR 2SC2712-YG	
JR008	1-216-295-91	SHORT	0	Q003	8-729-424-08	TRANSISTOR UN2111	
JR010	1-216-295-91	SHORT	0	Q004	8-729-421-22	TRANSISTOR UN2211	
JR012	1-216-295-91	SHORT	0	Q101	8-729-230-49	TRANSISTOR 2SC2712-YG	
JR014	1-216-295-91	SHORT	0	Q201	8-729-424-67	TRANSISTOR UN2216	
JR015	1-216-295-91	SHORT	0				
JR016	1-216-295-91	SHORT	0	Q202	8-729-424-67	TRANSISTOR UN2216	
JR019	1-216-295-91	SHORT	0	Q203	8-729-421-19	TRANSISTOR UN2213	
JR102	1-216-295-91	SHORT	0	Q204	8-729-216-22	TRANSISTOR 2SA1162-G	
JR107	1-216-295-91	SHORT	0	Q205	8-729-421-19	TRANSISTOR UN2213	
				Q206	8-729-421-19	TRANSISTOR UN2213	
JR202	1-216-295-91	SHORT	0				
JR309	1-216-295-91	SHORT	0	Q207	8-729-421-19	TRANSISTOR UN2213	
JR500	1-216-295-91	SHORT	0	Q301	8-729-216-22	TRANSISTOR 2SA1162-G	
JR501	1-216-295-91	SHORT	0	Q302	8-729-230-49	TRANSISTOR 2SC2712-YG	
JR502	1-216-295-91	SHORT	0	Q303	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q304	8-729-216-22	TRANSISTOR 2SA1162-G	
JR503	1-216-295-91	SHORT	0				
JR600	1-216-295-91	SHORT	0	Q305	8-729-216-22	TRANSISTOR 2SA1162-G	
		<COIL>		Q306	8-729-216-22	TRANSISTOR 2SA1162-G	
L002	1-414-856-11	INDUCTOR	10UH	Q307	8-729-230-49	TRANSISTOR 2SC2712-YG	
L003	1-414-180-11	INDUCTOR	3.3UH	Q308	8-729-216-22	TRANSISTOR 2SA1162-G	
L005	1-414-233-22	INDUCTOR CHIP	0UH	Q312	8-729-216-22	TRANSISTOR 2SA1162-G	
L101	1-414-856-11	INDUCTOR	10UH				
L102	1-414-856-11	INDUCTOR	10UH	Q313	8-729-230-49	TRANSISTOR 2SC2712-YG	
				Q315	8-729-421-19	TRANSISTOR UN2213	
				Q501	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q502	8-729-216-22	TRANSISTOR 2SA1162-G	
				Q503	8-729-230-49	TRANSISTOR 2SC2712-YG	

A

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q505	8-729-931-45	TRANSISTOR IRF614		R056	1-216-073-00	RES,CHIP 10K	5% 1/10W
Q506	8-729-119-80	TRANSISTOR 2SC2688-LK		R061	1-216-033-00	RES,CHIP 220	5% 1/10W
Q507	8-729-216-22	TRANSISTOR 2SA1162-G		R062	1-216-041-00	RES,CHIP 470	5% 1/10W
Q509	8-729-230-49	TRANSISTOR 2SC2712-YG		R063	1-216-041-00	RES,CHIP 470	5% 1/10W
Q511	8-729-048-07	TRANSISTOR 2SD2578-CA		R064	1-216-041-00	RES,CHIP 470	5% 1/10W
Q600	8-729-119-78	TRANSISTOR 2SC2785-HFE		R065	1-216-041-00	RES,CHIP 470	5% 1/10W
Q601	8-729-023-22	TRANSISTOR 2SD2114K		R066	1-216-049-91	RES,CHIP 1K	5% 1/10W
Q602	8-729-230-49	TRANSISTOR 2SC2712-YG		R067	1-216-049-91	RES,CHIP 1K	5% 1/10W
Q603	8-729-424-08	TRANSISTOR UN2111		R101	1-216-025-91	RES,CHIP 100	5% 1/10W
Q604	8-729-200-17	TRANSISTOR 2SA1091-O		R102	1-216-025-91	RES,CHIP 100	5% 1/10W
Q605	8-729-044-30	TRANSISTOR 2SK2845-LB102		R105	1-216-295-91	SHORT 0	
Q606	8-729-230-49	TRANSISTOR 2SC2712-YG		R109	1-216-041-00	RES,CHIP 470	5% 1/10W
Q607	8-729-922-37	TRANSISTOR 2SD2144S-UVW		R111	1-216-025-91	RES,CHIP 100	5% 1/10W
Q608	8-729-230-49	TRANSISTOR 2SC2712-YG		R112	1-216-025-91	RES,CHIP 100	5% 1/10W
		<RESISTOR>		R113	1-216-047-91	RES,CHIP 820	5% 1/10W
R001	1-414-233-22	INDUCTOR CHIP 0UH		R202	1-216-053-00	RES,CHIP 1.5K	5% 1/10W
R002	1-216-025-91	RES,CHIP 100	5% 1/10W	R203	1-216-057-00	RES,CHIP 2.2K	5% 1/10W
R003	1-216-073-00	RES,CHIP 10K	5% 1/10W	R204	1-216-069-00	RES,CHIP 6.8K	5% 1/10W
R004	1-216-025-91	RES,CHIP 100	5% 1/10W	R205	1-216-069-00	RES,CHIP 6.8K	5% 1/10W
R005	1-216-025-91	RES,CHIP 100	5% 1/10W	R206	1-216-057-00	RES,CHIP 2.2K	5% 1/10W
R008	1-216-065-91	RES,CHIP 4.7K	5% 1/10W	R207	1-216-053-00	RES,CHIP 1.5K	5% 1/10W
R010	1-216-065-91	RES,CHIP 4.7K	5% 1/10W	R208	1-216-069-00	RES,CHIP 6.8K	5% 1/10W
R011	1-216-065-91	RES,CHIP 4.7K	5% 1/10W	R209	1-216-069-00	RES,CHIP 6.8K	5% 1/10W
R012	1-216-065-91	RES,CHIP 4.7K	5% 1/10W	R210	1-216-031-00	RES,CHIP 180	5% 1/10W
R013	1-216-065-91	RES,CHIP 4.7K	5% 1/10W	R212	1-216-031-00	RES,CHIP 180	5% 1/10W
R014	1-216-025-91	RES,CHIP 100	5% 1/10W	R213	1-216-073-00	RES,CHIP 10K	5% 1/10W
R015	1-216-025-91	RES,CHIP 100	5% 1/10W	R214	1-216-073-00	RES,CHIP 10K	5% 1/10W
R017	1-216-049-91	RES,CHIP 1K	5% 1/10W	R225	1-216-033-00	RES,CHIP 220	5% 1/10W
R018	1-216-033-00	RES,CHIP 220	5% 1/10W	R226	1-216-033-00	RES,CHIP 220	5% 1/10W
R019	1-216-073-00	RES,CHIP 10K	5% 1/10W	R227	1-216-033-00	RES,CHIP 220	5% 1/10W
R021	1-216-073-00	RES,CHIP 10K	5% 1/10W	R228	1-249-389-11	CARBON 4.7	5% 1/4W
R022	1-216-033-00	RES,CHIP 220	5% 1/10W	R229	1-216-073-00	RES,CHIP 10K	5% 1/10W
R024	1-216-063-91	RES,CHIP 3.9K	5% 1/10W	R230	1-216-073-00	RES,CHIP 10K	5% 1/10W
R025	1-216-063-91	RES,CHIP 3.9K	5% 1/10W	R231	1-216-295-91	SHORT 0	
R026	1-216-063-91	RES,CHIP 3.9K	5% 1/10W	R234	1-249-389-11	CARBON 4.7	5% 1/4W
R027	1-216-073-00	RES,CHIP 10K	5% 1/10W	R237	1-216-308-00	RES,CHIP 4.7	5% 1/10W
R028	1-216-073-00	RES,CHIP 10K	5% 1/10W	R301	1-216-073-00	RES,CHIP 10K	5% 1/10W
R029	1-216-049-91	RES,CHIP 1K	5% 1/10W	R302	1-216-295-91	SHORT 0	
R031	1-216-049-91	RES,CHIP 1K	5% 1/10W	R303	1-216-049-91	RES,CHIP 1K	5% 1/10W
R034	1-216-049-91	RES,CHIP 1K	5% 1/10W	R304	1-216-073-00	RES,CHIP 10K	5% 1/10W
R035	1-216-025-91	RES,CHIP 100	5% 1/10W	R305	1-216-051-00	RES,CHIP 1.2K	5% 1/10W
R036	1-216-025-91	RES,CHIP 100	5% 1/10W	R306	1-216-085-00	RES,CHIP 33K	5% 1/10W
R037	1-216-025-91	RES,CHIP 100	5% 1/10W	R308	1-216-025-91	RES,CHIP 100	5% 1/10W
R040	1-216-025-91	RES,CHIP 100	5% 1/10W	R309	1-216-025-91	RES,CHIP 100	5% 1/10W
R041	1-216-025-91	RES,CHIP 100	5% 1/10W	R310	1-216-025-91	RES,CHIP 100	5% 1/10W
R042	1-216-295-91	SHORT 0		R311	1-216-017-91	RES,CHIP 47	5% 1/10W
R043	1-216-049-91	RES,CHIP 1K	5% 1/10W	R312	1-216-041-00	RES,CHIP 470	5% 1/10W
R044	1-216-025-91	RES,CHIP 100	5% 1/10W	R313	1-216-053-00	RES,CHIP 1.5K	5% 1/10W
R045	1-414-233-22	INDUCTOR CHIP 0UH		R314	1-216-043-91	RES,CHIP 560	5% 1/10W
R046	1-216-049-91	RES,CHIP 1K	5% 1/10W	R315	1-216-053-00	RES,CHIP 1.5K	5% 1/10W
R047	1-414-233-22	INDUCTOR CHIP 0UH		R316	1-216-053-00	RES,CHIP 1.5K	5% 1/10W
R048	1-216-073-00	RES,CHIP 10K	5% 1/10W	R317	1-216-077-91	RES,CHIP 15K	5% 1/10W
R050	1-216-073-00	RES,CHIP 10K	5% 1/10W	R318	1-216-051-00	RES,CHIP 1.2K	5% 1/10W
R053	1-216-049-91	RES,CHIP 1K	5% 1/10W	R319	1-216-025-91	RES,CHIP 100	5% 1/10W
R055	1-216-073-00	RES,CHIP 10K	5% 1/10W	R320	1-216-065-91	RES,CHIP 4.7K	5% 1/10W
				R321	1-216-073-00	RES,CHIP 10K	5% 1/10W
				R322	1-216-033-00	RES,CHIP 220	5% 1/10W

A

REF. NO.	PART NO.	DESCRIPTION	REMARK				REF. NO.	PART NO.	DESCRIPTION	REMARK			
R326	1-216-295-91	SHORT	0				R533	1-249-417-11	CARBON	1K	5%	1/4W	
R331	1-216-295-91	SHORT	0				R534	1-216-361-00	METAL OXIDE	0.22	5%	2W	F
R332	1-216-033-00	RES,CHIP	220	5%	1/10W		R535	1-216-067-00	RES,CHIP	5.6K	5%	1/10W	
							R536	1-216-067-00	RES,CHIP	5.6K	5%	1/10W	
R333	1-216-083-00	RES,CHIP	27K	5%	1/10W		R537	1-208-804-11	METAL CHIP	8.2K	0.50%	1/10W	
R334	1-216-129-00	RES,CHIP	2.2M	5%	1/10W								
R335	1-216-045-00	RES,CHIP	680	5%	1/10W		R539	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R338	1-216-037-00	RES,CHIP	330	5%	1/10W		R540	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R340	1-216-025-91	RES,CHIP	100	5%	1/10W		R541	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
							R542	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R345	1-216-081-00	RES,CHIP	22K	5%	1/10W		R543	1-216-437-00	METAL OXIDE	5.6K	5%	1W	F
R346	1-216-051-00	RES,CHIP	1.2K	5%	1/10W								
R347	1-216-051-00	RES,CHIP	1.2K	5%	1/10W		R544	1-215-917-11	METAL OXIDE	1K	5%	3W	F
R348	1-208-806-11	METAL CHIP	10K	0.50%	1/10W		R545	1-216-077-91	RES,CHIP	15K	5%	1/10W	
R349	1-216-073-00	RES,CHIP	10K	5%	1/10W		R546	1-216-077-91	RES,CHIP	15K	5%	1/10W	
							R547	1-216-085-00	RES,CHIP	33K	5%	1/10W	
R350	1-216-061-00	RES,CHIP	3.3K	5%	1/10W		R548	1-208-796-11	METAL CHIP	3.9K	0.50%	1/10W	
R351	1-216-053-00	RES,CHIP	1.5K	5%	1/10W								
R354	1-216-057-00	RES,CHIP	2.2K	5%	1/10W		R549	1-215-452-00	METAL	20K	1%	1/4W	
R355	1-216-057-00	RES,CHIP	2.2K	5%	1/10W		R550	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R356	1-216-057-00	RES,CHIP	2.2K	5%	1/10W		R551	1-249-441-11	CARBON	100K	5%	1/4W	
							R552	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R357	1-216-079-00	RES,CHIP	18K	5%	1/10W		R553	1-215-453-00	METAL	22K	1%	1/4W	
R358	1-216-049-91	RES,CHIP	1K	5%	1/10W								
R359	1-216-033-00	RES,CHIP	220	5%	1/10W		R554	1-215-453-00	METAL	22K	1%	1/4W	
R360	1-216-033-00	RES,CHIP	220	5%	1/10W		R556	1-215-437-00	METAL	4.7K	1%	1/4W	
R361	1-216-073-00	RES,CHIP	10K	5%	1/10W		R558	1-247-843-11	CARBON	3.3K	5%	1/4W	
							R559	1-249-429-11	CARBON	10K	5%	1/4W	
R362	1-216-075-00	RES,CHIP	12K	5%	1/10W		R560	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R363	1-216-079-00	RES,CHIP	18K	5%	1/10W								
R364	1-216-295-91	SHORT	0				R561	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R365	1-216-033-00	RES,CHIP	220	5%	1/10W		R562	1-249-401-11	CARBON	47	5%	1/4W	
R366	1-216-073-00	RES,CHIP	10K	5%	1/10W		R564	1-208-820-11	METAL CHIP	39K	0.50%	1/10W	
							R565	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R367	1-216-073-00	RES,CHIP	10K	5%	1/10W		R567	1-216-105-91	RES,CHIP	220K	5%	1/10W	
R368	1-216-073-00	RES,CHIP	10K	5%	1/10W								
R370	1-216-033-00	RES,CHIP	220	5%	1/10W		R568	1-249-383-11	CARBON	1.5	5%	1/4W	F
R375	1-216-025-91	RES,CHIP	100	5%	1/10W		R570	1-216-069-00	RES,CHIP	6.8K	5%	1/10W	
R376	1-216-081-00	RES,CHIP	22K	5%	1/10W		R571	1-215-443-00	METAL	8.2K	1%	1/4W	
							R573	1-216-083-00	RES,CHIP	27K	5%	1/10W	
R377	1-216-121-91	RES,CHIP	1M	5%	1/10W		R575	1-208-796-11	METAL CHIP	3.9K	0.50%	1/10W	
R378	1-216-031-00	RES,CHIP	180	5%	1/10W								
R425	1-216-295-91	SHORT	0				R577	1-215-913-11	METAL OXIDE	220	5%	3W	F
R500	1-249-417-11	CARBON	1K	5%	1/4W		R578	1-216-369-00	METAL OXIDE	1	5%	2W	F
R501	1-216-049-91	RES,CHIP	1K	5%	1/10W		R579	1-216-295-91	SHORT	0			
							R580	1-208-830-11	METAL CHIP	100K	0.50%	1/10W	
R505	1-216-699-91	METAL CHIP	100K	0.50%	1/10W		R581	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W	
R506	1-216-081-00	RES,CHIP	22K	5%	1/10W								
R507	1-249-389-11	CARBON	4.7	5%	1/4W	F	R582	1-208-846-11	METAL CHIP	470K	0.50%	1/10W	
R508	1-216-471-11	METAL OXIDE	27	5%	3W	F	R584	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W	
R509	1-216-473-11	METAL OXIDE	56	5%	3W	F	R587	1-216-295-91	SHORT	0			
							R588	1-215-888-00	METAL OXIDE	220	5%	2W	F
R510	1-216-449-11	METAL OXIDE	56	5%	2W	F	R589	1-215-888-00	METAL OXIDE	220	5%	2W	F
R511	1-215-908-00	METAL OXIDE	33	5%	3W	F							
R515	1-215-911-11	METAL OXIDE	100	5%	3W	F	R590	1-215-465-00	METAL	68K	1%	1/4W	
R517	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W		R591	1-260-288-11	CARBON	0.47	5%	1/2W	F
R518	1-247-807-31	CARBON	100	5%	1/4W		R592	1-208-820-11	METAL CHIP	39K	0.50%	1/10W	
							R593	1-260-288-11	CARBON	0.47	5%	1/2W	F
R519	1-215-913-11	METAL OXIDE	220	5%	3W	F	R594	1-260-288-11	CARBON	0.47	5%	1/2W	F
R520	1-215-445-00	METAL	10K	1%	1/4W								
R522	1-208-806-11	METAL CHIP	10K	0.50%	1/10W		R595	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R523	1-249-411-11	CARBON	330	5%	1/4W		R596	1-215-916-00	METAL OXIDE	680	5%	3W	F
R525	1-218-768-11	METAL CHIP	470K	0.50%	1/10W		R597	1-247-750-11	CARBON	680	5%	1/2W	F
							R598	1-249-438-11	CARBON	56K	5%	1/4W	
R526	1-208-804-11	METAL CHIP	8.2K	0.50%	1/10W		R599	1-249-389-11	CARBON	4.7	5%	1/4W	
R527	1-216-001-00	RES,CHIP	10	5%	1/10W								
R528	1-208-814-91	METAL CHIP	22K	0.50%	1/10W		R600	1-249-438-11	CARBON	56K	5%	1/4W	
R529	1-208-766-11	METAL CHIP	220	0.50%	1/10W		R601	1-249-420-11	CARBON	1.8K	5%	1/4W	F
R531	1-247-843-11	CARBON	3.3K	5%	1/4W								

The components identified by shading
and mark Δ are critical for safety.
Replace only with part number specified.

A

B2

B6

REF. NO.	PART NO.	DESCRIPTION	REMARK		
R602	1-249-389-11	CARBON	4.7	5%	1/4W F
R603	1-215-485-00	METAL	470K	1%	1/4W
R604	1-216-097-91	RES,CHIP	100K	5%	1/10W
R607	1-249-425-11	CARBON	4.7K	5%	1/4W
R608	1-240-205-91	CARBON	22M	5%	1/2W
R609	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R610	1-216-073-00	RES,CHIP	10K	5%	1/10W
R611	1-216-089-91	RES,CHIP	47K	5%	1/10W
R612	1-216-045-00	RES,CHIP	680	5%	1/10W
R614	1-216-041-00	RES,CHIP	470	5%	1/10W
R615	1-216-369-00	METAL OXIDE	1	5%	2W F
R616	1-260-302-51	CARBON	6.8	5%	1/2W F
R617	1-247-791-91	CARBON	22	5%	1/4W
R619	1-260-128-11	CARBON	270K	5%	1/2W
R621	1-215-859-00	METAL OXIDE	22	5%	1W F
R623	1-216-095-00	RES,CHIP	82K	5%	1/10W
R624	1-216-089-91	RES,CHIP	47K	5%	1/10W
R626	1-216-049-91	RES,CHIP	1K	5%	1/10W
R627	1-240-251-11	CMT,MELF	6.8	5%	10W
R629	1-247-747-11	CARBON	470	5%	1/2W F
R630	1-249-429-11	CARBON	10K	5%	1/4W F
R631	1-216-089-91	RES,CHIP	47K	5%	1/10W
R632	1-220-886-11	FUSIBLE	0.1	10%	1W F
R634 Δ	1-218-265-11	METAL	8.2M	5%	1W
R635	1-216-492-11	METAL OXIDE	82K	5%	3W F
R636	1-215-924-00	METAL OXIDE	15K	5%	3W F
R637	1-216-492-11	METAL OXIDE	82K	5%	3W F
R639	1-216-361-21	METAL OXIDE	0.22	5%	2W F
R640	1-249-415-11	CARBON	680	5%	1/4W
R641	1-216-361-21	METAL OXIDE	0.22	5%	2W F
R642	1-249-419-11	CARBON	1.5K	5%	1/4W
R643	1-247-843-11	CARBON	3.3K	5%	1/4W
R644	1-249-419-11	CARBON	1.5K	5%	1/4W
R646	1-215-924-00	METAL OXIDE	15K	5%	3W F
R647	1-249-387-11	CARBON	3.3	5%	1/4W
R648	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R649	1-249-417-11	CARBON	1K	5%	1/4W
R650	1-215-882-00	METAL OXIDE	22	5%	2W F
R652	1-215-900-11	METAL OXIDE	22K	5%	2W F
R653	1-215-873-00	METAL OXIDE	4.7K	5%	1W F
R656	1-249-417-11	CARBON	1K	5%	1/4W
R657	1-260-127-11	CARBON	220K	5%	1/2W
R659	1-216-049-91	RES,CHIP	1K	5%	1/10W
R660	1-216-073-00	RES,CHIP	10K	5%	1/10W
R661	1-215-873-00	METAL OXIDE	4.7K	5%	1W F
R682	1-249-377-11	CARBON	0.47	5%	1/4W F
R901	1-249-411-11	CARBON	330	5%	1/4W
R902	1-249-411-11	CARBON	330	5%	1/4W
R909	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R910	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
<RELAY>					
RY600 Δ	1-755-276-21	RELAY, POWER			
RY601 Δ	1-755-299-11	RELAY			

REF. NO.	PART NO.	DESCRIPTION	REMARK
<SWITCH>			
S501	1-572-707-11	SWITCH, LEVER	
S502	1-572-707-11	SWITCH, LEVER	
<TRANSFORMER>			
T501	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE	
T503	△ 8-598-831-00	FBT ASSY, NX-4009	
T504	1-431-693-11	TRANSFORMER, HORIZONTAL LINEAR	
T505	1-426-981-11	TRANSFORMER, FERRITE (PMT)	
T601	1-431-536-11	TRANSFORMER, LINE FILTER	
T603	△ 1-431-976-11	TRANSFORMER, CONVERTER (SRT)	
T604	△ 1-431-852-11	TRANSFORMER, CONVERTER (SRT)	
<THERMISTOR>			
THP600	1-803-540-11	THERMISTOR	
<TUNER>			
TU101	8-598-451-20	TUNER, FSS BTF-WG441	
<CRYSTAL>			
X001	1-579-125-11	VIBRATOR, CERAMIC	
X301	1-781-134-21	VIBRATOR, CRYSTAL	
X302	1-781-132-21	VIBRATOR, CRYSTAL	

* A-1131-525-A		B2 BOARD MOUNTED	

<CONNECTOR>			
CN2302*	1-766-952-11	CONNECTOR, BOARD TO BOARD 11P	
<MODULE>			
YCM230	1-466-162-42	BLOCK, COM FILTER (CFB-4)	

* A-1136-065-A		B6 BOARD COMPLETE	

1-533-223-11		CLIP, FUSE	
* 4-374-846-01		COVER, CAPACITOR, CAP TYPE	
<CAPACITOR>			
C8227	1-163-037-11	CERAMIC CHIP	0.022MF 10% 50V
C8228	1-163-024-00	CERAMIC CHIP	0.018MF 10% 50V
C8229	1-163-018-00	CERAMIC CHIP	0.0056MF 10% 50V
C8230	1-163-024-00	CERAMIC CHIP	0.018MF 10% 50V
C8231	1-163-018-00	CERAMIC CHIP	0.0056MF 10% 50V

B6

The components identified by shading
and mark \triangle are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK		
C8232	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C8233	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8234	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8235	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8236	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8238	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C8240	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C8241	1-164-346-11	CERAMIC CHIP	1MF		16V
C8242	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C8243	1-164-346-11	CERAMIC CHIP	1MF		16V
C8244	1-164-700-11	CERAMIC CHIP	0.68MF		16V
C8245	1-164-346-11	CERAMIC CHIP	1MF		16V
C8246	1-163-018-00	CERAMIC CHIP	0.0056MF	10%	50V
C8247	1-164-346-11	CERAMIC CHIP	1MF		16V
C8248	1-163-010-11	CERAMIC CHIP	0.0012MF	10%	50V
C8249	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8250	1-164-346-11	CERAMIC CHIP	1MF		16V
C8251	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C8252	1-164-346-11	CERAMIC CHIP	1MF		16V
C8253	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C8254	1-126-965-11	ELECT	22MF	20%	50V
C8255	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C8258	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8259	1-126-933-11	ELECT	100MF	20%	16V
C8260	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C8261	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C8263	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8301	1-126-933-11	ELECT	100MF	20%	16V
C8304	1-126-967-11	ELECT	47MF	20%	50V
C8305	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8333	1-126-964-11	ELECT	10MF	20%	50V
C8401	1-164-346-11	CERAMIC CHIP	1MF		16V
C8402	1-164-346-11	CERAMIC CHIP	1MF		16V
C8403	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C8404	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C8405	1-126-935-11	ELECT	470MF	20%	16V
C8406	1-164-346-11	CERAMIC CHIP	1MF		16V
C8407	1-164-346-11	CERAMIC CHIP	1MF		16V
C8408	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C8409	1-126-933-11	ELECT	100MF	20%	16V
C8410	1-164-346-11	CERAMIC CHIP	1MF		16V
C8411	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C8412	1-164-346-11	CERAMIC CHIP	1MF		16V
C8413	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C8414	1-126-963-11	ELECT	4.7MF	20%	50V
C8415	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C8416	1-164-346-11	CERAMIC CHIP	1MF		16V
C8417	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C8418	1-164-346-11	CERAMIC CHIP	1MF		16V
C8419	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C8571	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C8572	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C8574	1-216-295-91	SHORT	0		
C8575	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C8576	1-104-661-91	ELECT	330MF	20%	16V
C8577	1-165-319-11	CERAMIC CHIP	0.1MF		50V
C8578	1-165-319-11	CERAMIC CHIP	0.1MF		50V

REF. NO.	PART NO.	DESCRIPTION			REMARK
C8579	1-126-967-11	ELECT	47MF	20%	50V
C8580	1-165-319-11	CERAMIC CHIP	0.1MF		50V
C8581	1-165-319-11	CERAMIC CHIP	0.1MF		50V
C8601 \triangle	1-104-708-11	MYLAR	0.47MF	20%	250V
C8602 \triangle	1-109-835-11	MYLAR	0.68MF	20%	250V
C8654 \triangle	1-117-703-11	CERAMIC	0.0047MF	99%	250V
<CONNECTOR>					
CN8300 *	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P			
CN8401 *	1-564-509-11	PLUG, CONNECTOR 6P			
CN8402 *	1-564-513-11	PLUG, CONNECTOR 10P			
CN8403 *	1-564-510-11	PLUG, CONNECTOR 7P			
CN8501 *	1-564-506-11	PLUG, CONNECTOR 3P			
CN8601 *	1-580-843-11	PIN, CONNECTOR (POWER)			
CN8602 *	1-580-843-11	PIN, CONNECTOR (POWER)			
CN8603	1-695-915-11	TAB (CONTACT)			
<DIODE>					
D8300	8-719-158-35	DIODE RD9.1SB			
D8401	8-719-158-35	DIODE RD9.1SB			
D8402	8-719-158-35	DIODE RD9.1SB			
D8403	8-719-158-35	DIODE RD9.1SB			
D8404	8-719-158-35	DIODE RD9.1SB			
D8405	8-719-158-35	DIODE RD9.1SB			
D8406	8-719-158-35	DIODE RD9.1SB			
D8407	8-719-158-35	DIODE RD9.1SB			
D8408	8-719-158-35	DIODE RD9.1SB			
D8409	8-719-158-35	DIODE RD9.1SB			
D8410	8-719-158-35	DIODE RD9.1SB			
D8411	8-719-158-35	DIODE RD9.1SB			
D8412	8-719-914-42	DIODE DA204K			
D8413	8-719-158-35	DIODE RD9.1SB			
<FUSE>					
F8601 \triangle	1-532-299-00	FUSE, TIME-LAG 5A/250V			
<IC>					
IC8203	8-759-553-40	IC TDA7429S			
IC8204	8-759-100-96	IC UPC4558G2			
IC8501	8-752-058-68	IC CXA1315M			
<JACK>					
J8402	1-778-388-11	JACK BLOCK, PIN 9P			
<CHIP CONDUCTOR>					
JR8206	1-216-295-91	SHORT	0		
JR8401	1-216-295-91	SHORT	0		
<COIL>					
L8204	1-414-856-11	INDUCTOR	10UH		
L8301	1-414-189-31	INDUCTOR	100UH		

The components identified by shading
and mark \triangle are critical for safety.
Replace only with part number specified.

B6

REF. NO.	PART NO.	DESCRIPTION	REMARK			REF. NO.	PART NO.	DESCRIPTION	REMARK		
L8502	1-414-856-11	INDUCTOR	10UH			R8411	1-216-113-00	RES,CHIP	470K	5%	1/10W
L8570	1-410-470-11	INDUCTOR	10UH			R8412	1-216-041-00	RES,CHIP	470	5%	1/10W
						R8413	1-216-021-00	RES,CHIP	68	5%	1/10W
		<TRANSISTOR>				R8414	1-216-113-00	RES,CHIP	470K	5%	1/10W
Q8309	8-729-120-28	TRANSISTOR 2SC1623-L5L6				R8415	1-216-113-00	RES,CHIP	470K	5%	1/10W
Q8310	8-729-120-28	TRANSISTOR 2SC1623-L5L6				R8416	1-216-089-91	RES,CHIP	47K	5%	1/10W
Q8401	8-729-424-67	TRANSISTOR UN2216				R8417	1-216-089-91	RES,CHIP	47K	5%	1/10W
Q8402	8-729-424-67	TRANSISTOR UN2216				R8418	1-216-113-00	RES,CHIP	470K	5%	1/10W
Q8403	8-729-216-22	TRANSISTOR 2SA1162-G				R8419	1-216-022-00	RES,CHIP	75	5%	1/10W
Q8404	8-729-216-22	TRANSISTOR 2SA1162-G				R8420	1-216-113-00	RES,CHIP	470K	5%	1/10W
Q8571	8-729-230-49	TRANSISTOR 2SC2712-YG				R8421	1-216-077-91	RES,CHIP	15K	5%	1/10W
Q8572	8-729-230-49	TRANSISTOR 2SC2712-YG				R8422	1-216-077-91	RES,CHIP	15K	5%	1/10W
Q8573	8-729-216-22	TRANSISTOR 2SA1162-G				R8423	1-216-113-00	RES,CHIP	470K	5%	1/10W
Q8574	8-729-230-49	TRANSISTOR 2SC2712-YG				R8424	1-216-022-00	RES,CHIP	75	5%	1/10W
Q8575	8-729-216-22	TRANSISTOR 2SA1162-G				R8425	1-216-033-00	RES,CHIP	220	5%	1/10W
Q8576	8-729-216-22	TRANSISTOR 2SA1162-G				R8426	1-216-033-00	RES,CHIP	220	5%	1/10W
Q8577	8-729-216-22	TRANSISTOR 2SA1162-G				R8427	1-216-089-91	RES,CHIP	47K	5%	1/10W
						R8428	1-216-113-00	RES,CHIP	470K	5%	1/10W
		<RESISTOR>				R8429	1-216-089-91	RES,CHIP	47K	5%	1/10W
R8215	1-216-059-00	RES,CHIP	2.7K	5%	1/10W	R8430	1-216-113-00	RES,CHIP	470K	5%	1/10W
R8216	1-216-059-00	RES,CHIP	2.7K	5%	1/10W	R8570	1-216-021-00	RES,CHIP	68	5%	1/10W
R8217	1-216-067-00	RES,CHIP	5.6K	5%	1/10W	R8571	1-216-645-11	METAL CHIP	560	0.50%	1/10W
R8218	1-216-067-00	RES,CHIP	5.6K	5%	1/10W	R8572	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R8219	1-216-025-91	RES,CHIP	100	5%	1/10W						
R8220	1-216-025-91	RES,CHIP	100	5%	1/10W	R8573	1-216-073-00	RES,CHIP	10K	5%	1/10W
R8221	1-216-689-11	RES,CHIP	39K	5%	1/10W	R8574	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R8222	1-216-689-11	RES,CHIP	39K	5%	1/10W	R8575	1-216-081-00	RES,CHIP	22K	5%	1/10W
R8223	1-216-063-91	RES,CHIP	3.9K	5%	1/10W	R8577	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8224	1-216-073-00	RES,CHIP	10K	5%	1/10W	R8578	1-216-033-00	RES,CHIP	220	5%	1/10W
R8225	1-216-069-00	RES,CHIP	6.8K	5%	1/10W						
R8226	1-216-069-00	RES,CHIP	6.8K	5%	1/10W	R8579	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8238	1-216-067-00	RES,CHIP	5.6K	5%	1/10W	R8580	1-216-049-91	RES,CHIP	1K	5%	1/10W
R8239	1-216-067-00	RES,CHIP	5.6K	5%	1/10W	R8581	1-216-675-91	METAL CHIP	10K	0.50%	1/10W
R8240	1-216-689-11	RES,CHIP	39K	5%	1/10W	R8582	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R8241	1-216-067-00	RES,CHIP	5.6K	5%	1/10W	R8583	1-216-675-91	METAL CHIP	10K	0.50%	1/10W
R8242	1-216-067-00	RES,CHIP	5.6K	5%	1/10W						
R8243	1-216-689-11	RES,CHIP	39K	5%	1/10W	R8584	1-216-675-91	METAL CHIP	10K	0.50%	1/10W
R8334	1-216-022-00	RES,CHIP	75	5%	1/10W	R8585	1-216-675-91	METAL CHIP	10K	0.50%	1/10W
R8335	1-216-033-00	RES,CHIP	220	5%	1/10W	R8586	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R8336	1-216-041-00	RES,CHIP	470	5%	1/10W	R8589	1-216-073-00	RES,CHIP	10K	5%	1/10W
R8337	1-216-045-00	RES,CHIP	680	5%	1/10W	R8590	1-216-073-00	RES,CHIP	10K	5%	1/10W
R8339	1-216-057-00	RES,CHIP	2.2K	5%	1/10W						
R8341	1-216-045-00	RES,CHIP	680	5%	1/10W	R8591	1-216-073-00	RES,CHIP	10K	5%	1/10W
R8342	1-216-049-91	RES,CHIP	1K	5%	1/10W	R8592	1-216-073-00	RES,CHIP	10K	5%	1/10W
R8343	1-216-063-91	RES,CHIP	3.9K	5%	1/10W	R8593	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8344	1-216-073-00	RES,CHIP	10K	5%	1/10W	R8594	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8401	1-216-049-91	RES,CHIP	1K	5%	1/10W	R8595	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8402	1-216-073-00	RES,CHIP	10K	5%	1/10W						
R8403	1-216-073-00	RES,CHIP	10K	5%	1/10W	R8596	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R8404	1-216-073-00	RES,CHIP	10K	5%	1/10W	R8598	1-216-025-91	RES,CHIP	100	5%	1/10W
R8405	1-216-049-91	RES,CHIP	1K	5%	1/10W	R8599	1-216-025-91	RES,CHIP	100	5%	1/10W
R8406	1-216-073-00	RES,CHIP	10K	5%	1/10W	R8601 \triangle	1-202-719-00	SOLID	1M	10%	1/2W
R8407	1-216-049-91	RES,CHIP	1K	5%	1/10W						
R8408	1-216-049-91	RES,CHIP	1K	5%	1/10W	<TRANSFORMER>					
R8409	1-216-041-00	RES,CHIP	470	5%	1/10W	T8601 \triangle	1-431-536-11	TRANSFORMER, LINE FILTER			
R8410	1-216-113-00	RES,CHIP	470K	5%	1/10W	T8602 \triangle	1-431-182-11	TRANSFORMER, LINE FILTER			
						<VARISTOR>					
						VDR8461 \triangle	1-801-830-31	VARISTOR ERZV14D621			

C6

The components identified by shading
and mark Δ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
	* A-1332-011-A	C6 BOARD MOUNTED *****				<JACK>	
	4-382-854-11	SCREW (M3X10), P, SW (+)		J701	Δ 1-540-071-22	SOCKET, CRT	
		<CAPACITOR>				<COIL>	
C701	1-162-114-00	CERAMIC 0.0047MF	2KV	L701	1-410-667-31	INDUCTOR 22UH	
C702	1-102-074-00	CERAMIC 0.001MF	10% 50V	L703	1-408-611-31	INDUCTOR 47UH	
C708	1-102-114-00	CERAMIC 470PF	10% 50V	L705	1-408-611-31	INDUCTOR 47UH	
C709	1-102-114-00	CERAMIC 470PF	10% 50V	L707	1-408-611-31	INDUCTOR 47UH	
C710	1-102-114-00	CERAMIC 470PF	10% 50V			<TRANSISTOR>	
C712	1-102-114-00	CERAMIC 470PF	10% 50V	Q701	8-729-326-11	TRANSISTOR 2SC2611	
C713	1-102-110-00	CERAMIC 220PF	10% 50V	Q702	8-729-326-11	TRANSISTOR 2SC2611	
C714	1-102-113-00	CERAMIC 390PF	10% 50V	Q703	8-729-326-11	TRANSISTOR 2SC2611	
C716	1-126-933-11	ELECT 100MF	20% 16V	Q704	8-729-326-11	TRANSISTOR 2SC2611	
C717	1-107-651-11	ELECT 4.7MF	20% 250V	Q705	8-729-326-11	TRANSISTOR 2SC2611	
C726	1-104-664-11	ELECT 47MF	20% 25V	Q706	8-729-326-11	TRANSISTOR 2SC2611	
C1800	1-126-964-11	ELECT 10MF	20% 50V	Q707	8-729-200-17	TRANSISTOR 2SA1091-O	
C1803	1-126-964-11	ELECT 10MF	20% 50V	Q708	8-729-200-17	TRANSISTOR 2SA1091-O	
C1804	1-126-964-11	ELECT 10MF	20% 50V	Q709	8-729-200-17	TRANSISTOR 2SA1091-O	
C1809	1-126-942-61	ELECT 1000MF	20% 25V	Q710	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		<CONNECTOR>		Q711	8-729-119-78	TRANSISTOR 2SC2785-HFE	
CN700	1-695-915-11	TAB (CONTACT)		Q712	8-729-119-78	TRANSISTOR 2SC2785-HFE	
CN701	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		Q714	8-729-255-12	TRANSISTOR 2SC2551-O	
CN702	1-695-915-11	TAB (CONTACT)		Q1800	8-729-119-76	TRANSISTOR 2SA1175-HFE	
CN703	* 1-564-509-11	PLUG, CONNECTOR 6P		Q1802	8-729-119-78	TRANSISTOR 2SC2785-HFE	
CN704	1-695-915-11	TAB (CONTACT)				<RESISTOR>	
CN1801	* 1-564-509-11	PLUG, CONNECTOR 6P		R701	1-249-496-11	CARBON 100K	5% 1/2W
CN1802	* 1-564-506-11	PLUG, CONNECTOR 3P		R705	1-216-392-11	METAL OXIDE 1.8	5% 3W F
		<DIODE>		R710	1-215-923-00	METAL OXIDE 10K	5% 3W F
D701	8-719-911-19	DIODE 1SS119-25		R711	1-260-101-11	CARBON 1.5K	5% 1/2W
D702	8-719-911-19	DIODE 1SS119-25		R712	1-215-923-00	METAL OXIDE 10K	5% 3W F
D703	8-719-911-19	DIODE 1SS119-25		R713	1-260-101-11	CARBON 1.5K	5% 1/2W
D704	8-719-911-19	DIODE 1SS119-25		R714	1-215-923-00	METAL OXIDE 10K	5% 3W F
D705	8-719-911-19	DIODE 1SS119-25		R715	1-260-101-11	CARBON 1.5K	5% 1/2W
D706	8-719-911-19	DIODE 1SS119-25		R716	1-249-405-11	CARBON 100	5% 1/4W F
D707	8-719-911-19	DIODE 1SS119-25		R717	1-249-405-11	CARBON 100	5% 1/4W F
D708	8-719-911-19	DIODE 1SS119-25		R718	1-249-405-11	CARBON 100	5% 1/4W F
D709	8-719-911-19	DIODE 1SS119-25		R719	1-215-469-00	METAL 100K	1% 1/4W
D710	8-719-911-19	DIODE 1SS119-25		R720	1-249-923-11	CARBON 1K	5% 1/4W F
D711	8-719-911-19	DIODE 1SS119-25		R722	1-249-923-11	CARBON 1K	5% 1/4W F
D712	8-719-911-19	DIODE 1SS119-25		R723	1-215-469-00	METAL 100K	1% 1/4W
D713	8-719-911-19	DIODE 1SS119-25		R724	1-249-923-11	CARBON 1K	5% 1/4W F
D714	8-719-911-19	DIODE 1SS119-25		R725	1-249-424-11	CARBON 3.9K	5% 1/4W
D715	8-719-911-19	DIODE 1SS119-25		R726	1-249-424-11	CARBON 3.9K	5% 1/4W
D716	8-719-911-19	DIODE 1SS119-25		R727	1-249-424-11	CARBON 3.9K	5% 1/4W
D717	8-719-121-26	DIODE RD9.1ESL2		R728	1-249-408-11	CARBON 180	5% 1/4W
D1803	8-719-911-19	DIODE 1SS119-25		R729	1-249-408-11	CARBON 180	5% 1/4W
D1804	8-719-911-19	DIODE 1SS119-25		R730	1-249-408-11	CARBON 180	5% 1/4W
D1808	8-719-908-03	DIODE GP08D		R731	1-249-401-11	CARBON 47	5% 1/4W
		<IC>		R732	1-249-401-11	CARBON 47	5% 1/4W
IC1800	8-759-822-38	IC LA6510		R733	1-249-401-11	CARBON 47	5% 1/4W
				R734	1-247-739-11	CARBON 100	5% 1/2W
				R738	1-247-807-31	CARBON 100	5% 1/4W

– 93 –



REF. NO.	PART NO.	DESCRIPTION	REMARK			
	* A-1372-742-A	H2 BOARD MOUNTED *****				
	* 4-055-304-01	HOLDER, LED				
		<CAPACITOR>				
C2910	1-104-664-11	ELECT	47MF	20%	16V	
C2911	1-104-664-11	ELECT	47MF	20%	16V	
C2912	1-102-114-00	CERAMIC	470PF	10%	50V	
C2914	1-126-933-11	ELECT	100MF	20%	16V	
		<CONNECTOR>				
CN2601 *	1-580-844-11	PIN, CONNECTOR (POWER)				
CN2602 *	1-695-292-11	PIN, CONNECTOR (POWER)				
CN2901 *	1-564-507-11	PLUG, CONNECTOR 4P				
CN2902 *	1-564-509-11	PLUG, CONNECTOR 6P				
CN2904 *	1-564-508-11	PLUG, CONNECTOR 5P				
CN2905 *	1-564-512-11	PLUG, CONNECTOR 9P				
		<DIODE>				
D2902	8-719-070-16	DIODE NNCD9.1A-T1				
D2905	8-719-070-16	DIODE NNCD9.1A-T1				
D2906	8-719-045-19	DIODE SPB-26MVWF				
D2908	8-719-070-16	DIODE NNCD9.1A-T1				
		<IC>				
IC2901	8-742-134-00	HYB IC SBX1981-51P				
		<JACK>				
J2901	1-770-786-11	JACK				
J2903	1-770-329-11	JACK, PIN 3P				
		<TRANSISTOR>				
Q2901	8-729-030-02	TRANSISTOR DTC144ESA				
Q2902	8-729-030-02	TRANSISTOR DTC144ESA				
		<RESISTOR>				
R2907	1-249-426-11	CARBON	5.6K	5%	1/4W	
R2908	1-249-413-11	CARBON	470	5%	1/4W	
R2909	1-249-417-11	CARBON	1K	5%	1/4W	
R2910	1-249-420-11	CARBON	1.8K	5%	1/4W	
R2911	1-249-411-11	CARBON	330	5%	1/4W	
R2912	1-247-843-11	CARBON	3.3K	5%	1/4W	
R2913	1-249-429-11	CARBON	10K	5%	1/4W	
R2914	1-249-411-11	CARBON	330	5%	1/4W	
R2915	1-249-429-11	CARBON	10K	5%	1/4W	
R2916	1-249-401-11	CARBON	47	5%	1/4W	
R2920	1-247-807-31	CARBON	100	5%	1/4W	
R2921	1-247-807-31	CARBON	100	5%	1/4W	
R2923	1-247-815-91	CARBON	220	5%	1/4W	
R2924	1-247-804-11	CARBON	75	5%	1/4W	

REF. NO.	PART NO.	DESCRIPTION	REMARK			
		<SWITCH>				
S2601	1-571-433-21	SWITCH, PUSH (AC POWER)				
S2902	1-692-431-21	SWITCH, TACTILE				
S2903	1-692-431-21	SWITCH, TACTILE				
S2904	1-692-431-21	SWITCH, TACTILE				
S2905	1-692-431-21	SWITCH, TACTILE				
S2906	1-692-431-21	SWITCH, TACTILE				
S2907	1-692-431-21	SWITCH, TACTILE				
S2908	1-692-431-21	SWITCH, TACTILE				
		<CAPACITOR>				
C801	1-104-664-11	ELECT	47MF	20%	16V	
C805	1-163-038-91	CERAMIC CHIP	0.1MF		25V	
C806	1-163-038-91	CERAMIC CHIP	0.1MF		25V	
C815	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C816	1-164-505-11	CERAMIC CHIP	2.2MF		16V	
C817	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C818	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
C820	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	
C821	1-163-038-91	CERAMIC CHIP	0.1MF		25V	
C822	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	
C823	1-126-933-11	ELECT	100MF	20%	16V	
C826	1-126-963-11	ELECT	4.7MF	20%	50V	
C829	1-163-113-00	CERAMIC CHIP	68PF	5%	50V	
C830	1-163-038-91	CERAMIC CHIP	0.1MF		25V	
C831	1-126-933-11	ELECT	100MF	20%	16V	
C832	1-126-964-11	ELECT	10MF	20%	50V	
C835	1-163-038-91	CERAMIC CHIP	0.1MF		25V	
C837	1-126-933-11	ELECT	100MF	20%	16V	
		<CONNECTOR>				
CN801 *	1-774-812-11	CONNECTOR, BOARD TO BOARD 7P				
CN803 *	1-774-812-11	CONNECTOR, BOARD TO BOARD 7P				
		<DIODE>				
D802	8-719-914-44	DIODE DAP202K				
D803	8-719-105-46	DIODE RD3.3M-B2				
D804	8-719-105-91	DIODE RD5.6M-B2				
D806	8-719-988-61	DIODE 1SS355TE-17				
D807	8-719-988-61	DIODE 1SS355TE-17				
		<FERRITE BEAD>				
FB801	1-410-397-21	FERRITE	1.1UH			
FB802	1-410-397-21	FERRITE	1.1UH			
FB803	1-410-397-21	FERRITE	1.1UH			
FB804	1-410-682-31	INDUCTOR	470UH			
FB805	1-410-397-21	FERRITE	1.1UH			

– 95 –



The components identified by shading
and mark \triangle are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK
C5920	1-126-964-11	ELECT 10MF	20% 50V
C5921	1-102-852-91	CERAMIC 47PF	5% 50V
<CONNECTOR>			
CN2801 *	1-564-506-11	PLUG, CONNECTOR 3P	
CN5901 *	1-564-510-11	PLUG, CONNECTOR 7P	
CN5904 *	1-770-723-11	CONNECTOR, BOARD TO BOARD 8P	
<DIODE>			
D5901	8-719-911-19	DIODE 1SS119-25	
D5902	8-719-110-88	DIODE RD39ESB2	
D5903	8-719-911-19	DIODE 1SS119-25	
D5904	8-719-110-88	DIODE RD39ESB2	
D5905	8-719-911-19	DIODE 1SS119-25	
D5906	1-249-406-11	CARBON 120	5% 1/4W
D5907	1-249-406-11	CARBON 120	5% 1/4W
<COIL>			
L5901	1-414-187-11	INDUCTOR 47UH	
L5902	1-414-856-11	INDUCTOR 10UH	
<TRANSISTOR>			
Q5901	8-729-230-45	TRANSISTOR 2SC2458-YGR	
Q5902	8-729-809-26	TRANSISTOR 2SA1606-E	
Q5903	8-729-230-45	TRANSISTOR 2SC2458-YGR	
Q5904	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q5905	8-729-230-45	TRANSISTOR 2SC2458-YGR	
Q5906	8-729-809-29	TRANSISTOR 2SC4159-E	
Q5908	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q5909	8-729-119-78	TRANSISTOR 2SC2785-HFE	
<RESISTOR>			
R5901	1-247-815-91	CARBON 220	5% 1/4W
R5902	1-249-414-11	CARBON 560	5% 1/4W F
R5903	1-247-734-11	CARBON 39	5% 1/2W F
R5904	1-249-411-11	CARBON 330	5% 1/4W
R5905	1-249-417-11	CARBON 1K	5% 1/4W
R5906	1-249-417-11	CARBON 1K	5% 1/4W
R5907	1-249-417-11	CARBON 1K	5% 1/4W
R5908	1-249-383-11	CARBON 1.5	5% 1/4W F
R5909	1-247-815-91	CARBON 220	5% 1/4W
R5910	1-249-403-11	CARBON 68	5% 1/4W
R5911	1-249-439-11	CARBON 68K	5% 1/4W
R5912	1-249-437-11	CARBON 47K	5% 1/4W
R5914	1-249-403-11	CARBON 68	5% 1/4W
R5915	1-249-429-11	CARBON 10K	5% 1/4W
R5916	1-249-419-11	CARBON 1.5K	5% 1/4W
R5917	1-249-416-11	CARBON 820	5% 1/4W
R5918	1-249-429-11	CARBON 10K	5% 1/4W
R5919	1-249-417-11	CARBON 1K	5% 1/4W F

REF. NO.	PART NO.	DESCRIPTION	REMARK
R5920	1-249-439-11	CARBON 68K	5% 1/4W
R5921	1-216-476-11	METAL OXIDE 180	5% 3W F
R5922	1-249-414-11	CARBON 560	5% 1/4W
R5923	1-249-383-11	CARBON 1.5	5% 1/4W F
R5925	1-249-400-11	CARBON 39	5% 1/4W F
R5929	1-215-880-00	METAL OXIDE 10	5% 2W F
R5930	1-249-413-11	CARBON 470	5% 1/4W
R5931	1-249-413-11	CARBON 470	5% 1/4W
R5932	1-249-413-11	CARBON 470	5% 1/4W
R5933	1-249-413-11	CARBON 470	5% 1/4W
R5934	1-249-430-11	CARBON 12K	5% 1/4W
R5935	1-249-429-11	CARBON 10K	5% 1/4W

MISCELLANEOUS			

	1-251-317-12	CAP ASSY, HIGH-VOLTAGE	
	\triangle 1-419-294-11	COIL, DEGAUSSING (FOR SINGAPORE)	
	\triangle 1-419-323-11	COIL, DEGAUSSING (FOR MALAYSIA)	
	1-452-094-00	CIRCULAR DISC MAGNET B	
	1-452-032-00	MAGNET,DISC	
	1-452-896-11	COIL, NA ROTATION (RT200)	
	1-505-503-11	SPEAKER (15X6.5CM)	
	\triangle 1-574-062-11	CORD, POWER (WITH CONNECTOR) 2.5A/250V	
	\triangle 8-451-494-31	DEFLECTION YOKE (Y29RSA-S)	
	8-453-011-11	NA299-M	
	\triangle 8-735-056-05	PICTURE TUBE (M68LNH070X)	

ACCESSORIES AND PACKING MATERIALS			

	3-701-910-00	SCREW, SPECIAL (DIA. 3.8X20)	
	3-868-153-11	MANUAL, INSTRUCTION	
	4-392-003-11	BAND, HOLD	
	4-392-004-11	CLIP	
	* 4-029-168-01	BAG, PROTECTION	
	* 4-054-319-01	TRAY	
	4-065-210-01	JOINT	
	* 4-066-926-03	CUSHION (UPPER) (ASSY)	
	* 4-066-927-02	CUSHION (LOWER) (ASSY)	
	* 4-072-591-01	INDIVIDUAL CARTON	

REMOTE COMMANDER			

	1-418-163-11	REMOTE COMMANDER (RM-952)	
	9-939-697-01	BATTERY COVER, REMOTE COMMANDER	